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ORIGINAL ARTICLES.

THE CLINICAL EFFECT OF THYROID EXTRACT UPON FIBROID TUMORS OF THE UTERUS.[1]

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IT is gratifying to know that among the many benefits attributed to thyroid extract, gynecology has not been overlooked. Amenorrhea, as a part of obesity, is already known to be amenable to it, and now fibroids are to be brought under its influence. The observers chiefly concerned in this endeavor are Jouin, Bell, and Stedman, Jouin being first and the most conclusive. His earlier paper appeared in 1895; the second, a year later, the observations covering twenty-five cases. Stedman, December 18, 1896, presents one undoubted case; while Bell, May 14, 1896, experimenting upon fibroids with an extract from the mammary gland, merely makes the assertion that fibroids are benefited by thyroid extract. It is evident, therefore, that the question is old enough and sufficiently well presented to warrant close inquiry on our part.

To arrive at more definite knowledge as to what the remedy really accomplishes for uterine fibroids, let me now give you a synopsis of results in ten cases which have come under my observation during the last fourteen months.

CASE I.—Patient, aged forty years; single. First intimation of the disease was menorrhagia. This began at thirty-four, and in spite of the use of electricity and ergot for three years to the fullest extent bearable (the ergot to the production of physiological effects three weeks out of each month; the electricity three times a week for six months each year excepting a week allowed for menstruation) the disease steadily progressed. In October, 1896, the tumor filled the anterior half of the pelvis and was specially marked by two subserous growths, one estimated at the size of the first phalanx of the index-finger and the other that of the thumb (allowing for the thickness of the abdominal walls), the former projecting from the fundus toward the left pubic spine, the latter from the region of the right cornua toward the right inguinal region resting over the brim of the pelvis near the corresponding pectineal eminence.

Prior to each menstruation, the mass as a whole was larger and the abdominal distention was decidedly increased. About once a month, generally midway between the menstrual periods, there came a marked accession of pain at which time the subserous projections above named were very sensitive. Naturally, the excessive menorrhagia caused persistent anemia with disarrangement of most of the digestive functions excepting the regularity of intestinal movement. This was daily sufficient. The condition of the skin, hair, and nails was impaired as might also have been expected. On November 4, 1896, the patient began the use of thyroid extract and continued it until November 9, 1897. An examination on the latter date showed a reduction in the uterine mass of about one-fourth, this being well assured in the two projections above described. The reduction is reflected in the diminution of the abdomen as a whole and is particularly well-marked, by contrast, just before menstruation, there being no longer increased distention at such times. The pain and tenderness have practically disappeared and the mass has softened. Menstruation has assumed proportions but little in excess of the normal standard. There has been slight increase in weight. The skin has assumed its former rosy tint, its softness, and its normal standard of secretion. New hair has sprung up and the old regained its luster and the same ratio of betterment is shown by the nails. The muscles, nervous energy, and strength have risen from decided depression to about their normal state, so that taken all in all the patient considers herself a well women, and conducts her life in accordance with this idea.

July 1, 1898, condition of general health as good as on November 9, 1897, but the tumor shows a slight increase above that observed just prior to the commencement of the thyroid treatment. The menstrual flow has been a little in excess of the normal since April. Thyroid has not been given since February 1st, owing to tachycardia. Thyroid treatment recommenced June 20th.

CASE II.—Patient, aged thirty years; unmarried. Observation began October 1, 1896. Menstruation excessive since the 19th of September. Had been treated with ergot and the curette. Was very anemic, with all that the condition implies. Under ether she was found to have an interstitial growth about as large as a pigeon's egg, located on the right side of the uterus and apparently extending between the folds of the broad ligament. The menstrual flow as profuse as ever. Was again curetted and put on ergot to the physiological effect. Third menstrual period after the curettage was as profuse as ever. Thyroid now administered, May 1, 1897. Examined October 15, 1897. Tumor less prominent and uterus, as a whole, somewhat smaller than on May 1st. Menstruation about normal. No longer an anemic, feels well. June 1, 1898, general improvement continues,

[1] Read in part before the Baltimore Obstetrical Society, December, 1897. Additional observations in December, 1898.

but growth is about as large as at first observation, and for the past three months, menstruation was in excess.

CASE III.—Patient, aged thirty-five years; married; two children. Two years ago menstruation began to be profuse and painful. Has emaciated slightly and is always conscious of fulness and weight in the pelvis, most marked just prior to menstruation. Examination shows a symmetrically enlarged uterus, size about equal to a four-months' pregnancy. The growth appeared to be wholly interstitial. This patient was subjected to treatment by ergot and electricity for four months, without apparent result. Was then put upon thyroid extract for four months. The result was a disappearance of pain and fulness, a practically normal menstruation, and the same marked general improvement noted in Case I. The tumor was softened and had apparently lessened in size. July 1, 1898, this improvement continues.

CASE IV.—Patient aged thirty-nine years; single. Gradual enlargement of abdomen for last nine years. Four years ago first realized that this enlargement meant a tumor. Being a busy, active woman, suppressed her discomfort until about a year ago when it became so severe as to be unbearable. Walking, turning in bed, and finally, even breathing was painful, and a sudden jar was most distressing. This pain was diffused more or less over the entire abdomen. She menstruated excessively eight days. The tumor was quite as large as a pregnant uterus at term; was sensitive and symmetrical. After five-months' use of thyroid extract she was one inch less in size of abdomen, quite comfortable, free from the former pain, menstruated five days naturally, and felt strong and well, all of which is borne out by the decided improvement in her general appearance. March 18, 1898, improvement is maintained.

CASES V. AND VI.—Patients have growths similar in many respects, although the first is forty-two years old, is married and the mother of one child eighteen years old. The second is single, aged thirty-four. Both have had menorrhagia for about six years; both have probably the myomatous form of growth, the tumor in each case being smooth, symmetrical, comparatively soft, and about as large as a four-months' pregnancy. Each has taken the remedy ten months, with betterment of general health and apparent arrest of growth, it being in each about the size found on first examination. In Case V. menstruation was arrested for three months, when it came on excessively and has returned each month, still in excess but less than before taking the remedy. She has suffered some loss of flesh. The other patient has found decided betterment of general health and energy but the menorrhagia is no better. I am now inclined to consider this case as one of submucous sessile growth. A recapitulation of the net result in these two cases is to the effect that the flow has not been materially lessened; the tumors have not grown; the general health has improved. July 1, 1898, the flow has been controlled in both. The tumors are smaller, the general health is excellent.

In Case VII. we scored a failure, as the medicine caused too much gastric disturbance. The patient, however, was timid, or rather had timid surroundings, and these proved too formidable, so the remedy was stopped at the end of two weeks.

CASE VIII.—Patient, aged thirty-eight years; married; two children, youngest eleven years old. First observation September 16, 1897. Uterus about size of the second month of pregnancy. It was hard, with here and there small interstitial nodules. Menstruated in excess, the flow lasting four days beyond the normal. (This had been the condition for years.) Thyroid commenced at above date. The next menstruation was nearly normal. General health showed improvement. The succeeding menstruation absent. Condition of general improvement still more marked. May 1, 1898, the amenorrhea had been shown to be due to pregnancy, this condition dating from the period of November, 1897. Confined of a living child August, 1898.

CASE IX.—Patient aged thirty-four; single. October 6, 1897. For two years had menstruated in excess, and had suffered from pain in the left iliac region which, upon examination, was found to be seated in a subperitoneal fibroid excrescence situated upon the left side of the uterus. The uterus was nodular, showing several nodules, the whole about the size of a three-months' pregnant uterus. After six-weeks' use of the remedy the pain and tenderness were lessened, and the flow was decreased at the last period. Up to May 1, 1898, this improvement had been maintained. The patient is able to follow her vocation as nurse without let or hindrance.

CASE X.—Patient, aged forty years; married. First observation April 10, 1897. Has two children, the youngest ten years old. For the last five years had had menorrhagia which had finally become so profuse as to impair her efficiency as a wife and housekeeper. Has a nodular, hard uterus, about equal in size to a pregnancy of four months. No special tenderness and but little local discomfort. This patient at the end of eight months gives the same favorable results noted in other cases: control of bleeding and improvement in general health. The tumor apparently is no larger than at the original observation. May 1, 1898: this same improvement maintained.

The net result in each case (Case VII. excepted) has been improvement, the greatest existing in those who took the treatment longest. Its manifestations were: (*a*) control of the menstrual flow; (*b*) arrest of the growth and, in some cases, diminution of the size of the tumor and apparently softening of it; (*c*) disappearance of pain and diminution of tenderness in the growth, and also of the sense of abdominal and pelvic distention, increase of muscular and nervous energy; (*d*) betterment of general nutrition, manifested at first by slight loss and then by return of flesh; improved state of the skin, hair, and nails, and in the substitution of a good color for the ap-

pearance of anemia. As might be inferred, the condition of the bowels was likewise improved although, as we shall see later, this was counterbalanced in some cases by gastric disturbances. It must not be supposed, however, that this was the sole drawback. There were others, but none was insurmountable —all belonged to the state now designated "thyroidism," but were manifested in its milder form because of the close watch kept upon the remedy. In every instance tachycardia was the most common drawback; next, restlessness and sleeplessness, when the drug was taken at bedtime; and lastly, indigestion.

It is evident then, that the remedy is efficacious, but when conceded a place, it must be compared with those accepted and now in use. To this end we, therefore, submit the following observations: Ergot, with or without digitalis, has failed to arrest menorrhagia in about fifty per cent. of our cases, and when successful it has been continued, as a rule, in the face of an impairment of digestion and bowel action, interference with the heart's action, and sometimes its use has been accompanied by a good deal of mental depression. Even though retarding growth for a time, it loses this action after a while. It aids in the expulsion of submucous fibroids and the conversion of interstitial into subperitoneal and submucous growths. The general health is apt to deteriorate much in the prolonged use of this drug. The suspension of the ergot has been followed usually by relapse into a state about as unfavorable as when it was commenced. Electricity has given little satisfaction, except when used as a cauterant to the mucous membrane of the uterus, and this action has appeared to be in no way superior to the use of the curette, and is more dangerous. Curettage involves anesthesia and invasion of the uterine cavity not once, but repeatedly in all cases. Ligation of the uterine arteries is an operation *sub judice*, our experience being against rather than in its favor. Removal of the ovaries is an operation which offers, perhaps, a better result than mere ligation of the uterine arteries, but it is an open question with many having a patient fitted for a laparotomy if total extirpation is not better. Myomectomy, either submucous or subperitoneal, and total extirpation are procedures which stand by themselves, facing no rivals in their appropriate fields, so no comparison with any medicinal or hygienic treatment can be instituted with them.

This, therefore, reduces the competitors of the thyroid treatment to the purely medicinal—such as ergot and digitalis—to electricity, and what may be called the palliative operations, such as curettage, ligation of the uterine arteries, and oöphorectomy. We recognize that it is premature to institute a comparison between this thyroid treatment and the so-called palliatives, yet we have ventured upon it for the sole reason that our individual experience has seemed to justify it. If, therefore, the thyroid treatment can be shown to possess the power to keep down the menorrhagia, metrorrhagia, and hydrorrhea of fibroids; if it can control their growth and annul the pain inherent to many of them it is superior to any medicinal treatment now in vogue; is better than electricity, curettage, or ligation of the uterine arteries; is preferable to oophorectomy, and in all smaller tumors it should be carefully employed before myomectomy or total ablation is resorted to, excepting, of course, cases in which the growth is merely submucous or in which malignant or septic changes are suspected. All such cases, in common with the larger growths, come within the pale of myomectomy or total ablation and, as already admitted, are outside the field of this comparison.

As to the possibility of an efficient combination of some one or more of these discredited agents or procedures with the thyroid treatment, it has appeared to me as probable that some cases might be best reached through some such combination, for instance, cases of excessive menorrhagia might do best with a preliminary destruction of the diseased mucous membrane with the curette, to be followed soon after by the thyroid treatment. Then again, in combination with ergot, the two to be given simultaneously or successively as the symptoms suggest or warrant. The preliminary use of the curette appeals to one in the class of cases mentioned, but cannot be suggested as a routine measure for the reason that we have found it unnecessary in two of our cases. The combination treatment with ergot has seemed beneficial when it is borne well, three patients having been so treated. After the suspension of the thyroid, these patients were placed on ergot and it appeared to us that the good effects of the thyroid were maintained the better. We had previously observed these patients about six months upon the thyroid alone, and subsequently made observations for the same period of this combined treatment. In two others we instituted similar observations, with the combination of thyroid and electricity, but cannot say that we are convinced as to its efficiency. We wish it to be understood that in using electricity we do not carry the pole beyond the cervical canal, our experience with its intra-uterine application, except under anesthesia, having shown that we were apt to set up an intra-uterine septic inflammation, an accident only too sure to occur in the absence of the kind of antiseptic technic which is necessary, and possible, only under anesthesia.

As yet we have not been able to determine which of the two classes of fibroids are most amenable to the thyroid treatment, but we incline to the belief that the nearer the growth approaches the type of the pure myoma, as distinct from the fibromyoma, the better the ultimate result with the treatment. The bleeding, however, is more quickly controlled in the fibromyomas. This much one would infer from the comparative bloodlessness of this type, and yet, while leaning toward favorable conclusions, we must not forget that the effect of the long-continued use of this remedy in these cases is undetermined. We know of the more acute effects, *viz.:* the headaches, tremors, gouty and rheumatic pains, general debility, persistent vomiting, and profuse diarrhea; the tachycardia with its dyspnea, perhaps, even fatal, we know of, but we do not know how easily these symptoms are controlled by regulating the dosage or stopping the remedy. But have we information of some possible general, degenerative change in consequence of prolonged use? For answer, we are forced to consult myxedemas, for they are the only cases which, so far, have been long exposed to the drug. It is true that here we have a disease clearly due to a thyrosis, and in giving the drug we merely return that which Nature requires, so it is fair to assume that nothing but good can come to myxedema from proper dosage with the thyroid. But so far as fibroids are concerned we must remain in uncertainty upon this point until the condition of the thyroid gland and secretion can be determined. Until such information is forthcoming we must get our encouragement from analogy. Both diseases are common to women and common at about the same period, both are characterized largely by an increase of the connective-tissue elements, and both are prone to uterine bleedings. This similarity is too general to be more than suggestive, particularly when it is offset by the dominating influence of the ovary whose removal generally determines the subsidence of fibro-uterine disease. But in the absence of any contraindication the analogy may be taken as a justification for the prolonged use of thyroid extract in this disease, with the proviso that we be alert, be keenly inquisitive as to the state of the circulatory, renal, nervous, and digestive systems, stopping or curtailing treatment as warnings arise.

It may not be out of place to suggest a minimum meat diet for these patients, and to advise rest—rest even in bed when the tachycardia is too persistent and troublesome—or a change of preparation, as some have more of this poisonous action than others, probably due to impurities, such as ptomains, leucomains, or the substitution now and then of iodothysine, using the two alternately.

This paper, down to the sentence just closed, was read before the Baltimore Obstetrical Society, December 5, 1897. Since that date we have had an opportunity to add to our experience further observations upon the cases cited above. The most important relates to the effects of the prolonged use of the drug. All of these patients have now been subjected to this treatment more than a year, which is a period of time sufficient to give valuable if not conclusive evidence. Every patient showed diminution of body weight at first, Case II. more markedly than the others, but in none was it excessive, and in all a point was soon reached at which the general health showed decided improvement with a return of some of this loss. One patient showed such an increase of weight for a time that we were doubtful whether this was purely normal or a condition of pseudo-myxedema, such as was witnessed about the face in certain cases of insanity reported by Berkley in the *Johns Hopkins Hospital Bulletin*, July, 1897.

Further observations, however, proved that the appearance and the increase of weight was due to changes upon normal lines. No other patient showed any tendency to this psuedomyxedema. The tachycardia has been the most troublesome symptom of all but in none has it been excessive. Of late, we have been combining arsenic (after Bedord and Mabille) and the extract of thymus gland, suggested by Zaibisse, as a means of controlling the thyroidism, but too little time has elapsed to warrant any conclusive statements. Fowler's solution is used, three drops three times a day and the thymus extract just double in dosage of the thyroid, the three agents being given simultaneously. An important addition has been made, however, from observations touching the condition of the uterus and tumors in consequence of prolongation of the treatment. The shrinkage and apparent arrest of growth noted during the earlier treatment has not been maintained in two of the cases, I. and II. Both of these are fibroid myomas, and both show now after twenty-months' treatment an increase in the size of the growth. The increase may be approximately stated as equal to about one-fourth of the size present at the initiation of the treatment. The control of bleeding, however, and the improved health has been maintained; so that we see no reason to retract what was said in December last touching the relative value of this treatment. The occurrence of pregnancy in Case VIII. is suggestive and, taken in connection with the evident action of the remedy upon the endometrium, as witnessed in the control of the bleeding, it points to a beneficent action in cases of sterility due to abnormal states of this membrane. It is surely worth a trial in every

such case, no contraindication existing elsewhere, as in the heart, for instance. Upon the question of contraindication we can say no more than urge caution in all cases. Arterial fibrosis and cardiac and renal disease forbid its use, but even then we feel disposed to advise its use with extra precaution against the accidents of the remedy.

In is interesting to note that at the last meeting of the American Gynecological Society, Boston, May 24, 1898, Mosely, Mann, Duer, McLane, and Fry all reported favorably upon the action of the remedy in this disease. While, therefore, giving full credence to the observations of Cunningham, which tend to the conclusion that "thyroidism" is the product of decomposed animal matter in the thyroid mixtures and tablets in common use and not to the essential thyroid secretion itself, we must still believe that the remedy, in addition to the poisonous action, possesses a beneficent influence upon fibroid tumors. Completed with this question is the influence of the substance in delivering pregnancy and its action upon peri- and para-uterine exudates, as well as the betterment of the general health in certain women long depressed by the influence of certain uterine and ovarian disorders, the sequence of inflammation.

In conclusion, we venture to append the following remarkable report, not because of the result reported but as additional evidence upon the question of prolonged use of the remedy:

Recurrent Carcinoma of the Female Breast Entirely Disappearing under the Persistent Use of Thyroid Extract Continued for Eighteen Months. By Frederick Page, M.D., Edin.; M.R.C.S., Eng.; and William Bishop, M.B., B.S., Durh. — *Lancet*, May 28, 1898.

In December, 1895, Mr. Page was asked by a former house-surgeon of his, Dr. Bishop, to see with him a woman, aged sixty-one, who was suffering from carcinoma of the left breast of some six-months' duration. Her general health was very much impaired. The growth was the size of a hen's egg, in the upper part of the breast. Both axillary glands and their lymphatics were affected. On January 7, 1896, the breast was removed, together with the axillary glands and fat, the lymphatics, and the pectoral fascia. In April there was a recurrence of the disease in the neighborhood of the cicatrix, and on July 18th, several small nodules were removed. Both specimens were examined and pronounced to be carcinomatous. In September, 1896, at the suggestion of Dr. Bishop, thyroid extract was given, quite as a forlorn hope. At first three grains were taken daily, and the dose gradually increased until fifteen grains could be taken daily. During the eighteen months that the drug was administered, it was necessary to occasionally suspend treatment on account of its toxic effect. The patient is now quite well, and no trace of the disease discovered.

A Christian Scientist Suicide.—John A. Leverens, a Christian Scientist of Detroit, shot himself through the brain and breast. Fear of insanity, it is believed, caused him to commit the act.

DISLOCATION OF THE SEMILUNAR CARTILAGE.[1]

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IN these days of frequent football games one hears more often of injuries to the knee-joint, and in looking over the literature of this subject and in studying the cases, one is somewhat reminded of the injuries of the abdomen, for the more one investigates, the larger the field is found for operation. Formerly the peritoneal cavity was opened only in extreme cases; now it is opened not only for definite operations but also for the purpose of exploration in certain cases which are difficult of diagnosis. The knee-joint does not furnish as large a field as the abdomen, but more and more success has followed with the increasing number of operations. This advance in both classes of cases has been due to an improved technic aided by better asepsis. Both the the peritoneum and the synovial membrane are richly supplied with blood-vessels, and while these are capable of rapid absorption if pathogenic bacteria are present, yet if these can be excluded, as they generally are, conditions are present which are most favorable for prompt repair. The study of injuries to the knee is a most interesting one but also a broad one, so I shall confine this paper merely to that class which will be illustrated by the cases to be narrated later and which was first described by Hey, in 1803, as internal derangements of the knee-joint.

In order to better understand the function of the knee-joint it may be well to consider the anatomy of the parts. The semilunar cartilages are two crescentic fibro-cartilaginous plates which are attached to the oute margins of the head of the tibia. They are wedge-shaped, concave above, flat below, their outer borders being thick, firm, and adherent to the tibia, while the inner edge is thin, concave and quite freely movable on the head of the tibia. Anteriorly their tips are firmly implanted in a depression before the spine of the tibia, while posteriorly they are attached behind the spine. Their union is strengthened anteriorly by the fibers of the transverse ligament, the external, thicker, more circular, and covering a larger area being more strongly attached than the internal, which is thinner, more semicircular, somewhat elongated, and so less firmly adherent to the tibia. This fact may account for its more frequent separation and dislocation. Their function is to diminish the shock and jar of excessive motion in walking, run-

[1] Read before the Harvard Medical Society of New York, November 26, 1898.

ning, etc., and also to act as a support and guard to the condyles of the femur by means of their upper concave surface, through which they deepen the concavity of the articulation, thus adapting the surface of the tibia to the shape of the femur in its various positions between complete extension and flexion. The semilunar fibrocartilages being loosely attached to the head of the tibia, move forward in extension and backward in flexion of the joint, and further, as the condyles rolling upon the tibia present successively to the condylar surfaces of that bone portions having different curvatures, each cartilage, like a movable wedge, is contracted round the condyle during flexion of the joint and expanded during extension.

At first the knee-joint resembles a hinge-joint, but closer observation indicates that the movement consists rather of a combination of rolling, gliding, and rotation. The tibia executes a rotary movement during flexion around an imaginary axis drawn transversely through its upper end. Thus in extreme extension, it is the anterior portion of the tibia which is in contact with the femur; in the semiflexed position, its middle; in complete flexion, its posterior edge. As the condyles glide over the tibia they also rotate slowly and, as this rotation is made under pressure, a great strain is brought to bear upon the semilunar cartilage, so much so in fact, that one might expect separation to occur more frequently.

König believes that it is due to some antecedent disease, as tuberculosis or osteochondritis desiccans, but it is maintained by others that although tuberculosis of the knee-joint is quite common, yet the separation of the cartilage is not found any more frequently in this disease than when it has not existed. However, in cases in which this disease has existed, it may be considered as a predisposing factor, for the ligaments may have become weakened and lax so that the joint is not as strongly supported. In such a case a strain which could be well sustained by a normal joint might, in this relaxed condition produce a rupture of the cartilage. Shaffer has reported a number of cases in which he found, "elongated ligamentum patellar together with a very considerable lateral mobility of the joint."

Undoubtedly the largest number of cases are due to trauma. Some few patients furnish a history of direct injury to the joint, the person having fallen and struck the knee directly, and as a result of this contusion inflammatory processes may have developed, which finally terminated in the separation of a portion of the cartilage. This class is small and the majority of cases have arisen without the association of great force. The injury is due to some sudden and almost involuntary movement when the muscles governing the joint are off their guard. The patient slips and in falling forward the knee is usually semiflexed; there is a rotatory movement of the leg outward, or if the leg be fixed, a rotation of the thigh inward. Thus a great strain is exerted, usually upon the internal cartilage. It sustains a certain amount of strain and then gives way; it may be separated merely along its middle portion from its attachment to the tibia, or it may be ruptured anywhere in its course; or it may be torn away from its anterior attachment to the tibia. Again it may be due to forcible movements, that is, bending the knee beyond its usual range of motion together with a twisting motion.

Barker has described the mechanism of the accident as follows: "The actual dislocation is due to the nipping of its edge when the limb is extending, which fixes it between the two bones and prevents it traveling forward while the capsule, being rendered tense by extension, is torn away from it more and more until there is nothing to prevent it slipping into the middle of the joint." It occurs most often in young, active males between the ages of twenty and forty years, rarely ever in females. The internal cartilage is the one usually affected.

Diagnosis.—This is oftentimes difficult and sometimes very uncertain and it will depend much upon whether the case is a recent, or an old one. If a good history can be obtained it will be of the greatest assistance. In a recent case one hears that the accident happened for the first time while walking or running; the foot slipped and the leg was twisted while in a semiflexed position. The pain is sudden and severe; generally the most sensitive area is over the internal cartilage, and sometimes when the cartilage is much displaced it may be felt to move underneath the area of this greatest pain. Some few have found a depression in this area, but this observation has been uncommon. If, however, the case is an old one, and this has been true in the majority of reported cases, one may obtain a history of several previous recurring attacks each one of which has been similar but a little more severe than the preceding one. The attacks will have been more painful and the period of recovery prolonged. It will be learned that the knee has repeatedly given way without much strain having been applied, and that the patient has lost confidence in its strength, and can only use the knee when it is steadied and supported by some form of apparatus. The joint will have become so much swollen and the tissues so thickened from the recurrent attacks of synovitis that the normal outline cannot be defined. It will be necessary to wait until the effusion has subsided before locating the displaced cartilage. This has

been the experience of Barker, MacCormac, and Bull. Generally the leg cannot be extended without considerable manipulation to first express the cartilage from between the condyles and the head of the tibia. This may also be true when one has to deal with a floating cartilage; in the later case, however, the floating cartilage may often be worked to the outer aspect of the tibia, where it can be felt to move underneath the finger. The floating cartilage has much the greater range of motion. Moreover in all the reported cases it has been the internal semilunar cartilage which has been separated or dislocated.

Treatment.—This may be considered under two heads, non-operative and operative. Occasionally one may he able to see the patient shortly after the accident has occurred for the first time. After the preliminary examination an attempt will be made to replace the dislocated cartilage, and this may be accomplished by flexing the leg as much as possible on the thigh, then rotating the tibia inward, if it is the internal cartilage; or outward, if it is the external cartilage that has been displaced, and next extending the leg quickly upon the thigh while pressing with the thumb where the cartilage is supposed to be out of place. A firm bandage is then carefully applied and a pad adjusted over the displaced part. The patient is confined to bed and an ice-cap placed over the knee. On the following day massage is begun and continued daily. Graham suggests massage as being useful for two purposes: first, considering that possibly this accident may have occurred because of a lax condition of the ligaments and muscles of the knee, which involve a previous synovitis, or from a generally relaxed condition, the massage would improve the condition; second, after an accident similar to this there is always a certain amount of effusion, and for the removal of this massage is especially indicated. He narrates several instances in which he had treated the patients successfully in this way, and states that they were able to go about after a couple of months without any apparatus or other artificial support. As a precautionary measure it is suggested that the patient walk with the toes turned inward when there has been trouble with the internal cartilage, and with them turned outward when the trouble has been with the external cartilage.

Shaffer has published reports of several interesting cases, perhaps of a little severer type, in which he has succeeded very well by the use of his so-called Campbell knee apparatus. Thus, it may be said that with both the massage and the apparatus, patients who suffer from the milder types may go about their business in comfort without an operation. It may be necessary to wear the apparatus for several months, or an indefinite time, and one can never be sure that if he leaves off the apparatus the trouble may not return. That this may be so has been admitted by both these writers.

In the majority of cases these methods will not succeed, and it will become necessary to open the joint. It is the belief of the writer that under suitable conditions this can be done without much danger. In regard to the operation two incisions may be considered: first (Barker's method), with the leg extended a curved incision is made from the inner border of the ligament of the patella to the anterior edge of the lateral ligament. The ends of the incision in all cases correspond to a line a little above the line of the head of the tibia. The convexity of the flap reaches down about an inch on the head of the latter. The periosteum is raised with the flap which contains the capsule besides, but the fibers are left intact in their relation to the periosteum. This is necessary for the subsequent strength of the joint. When this flap is raised the cartilaginous rim of the articular facet is generally to be seen divested of its covering of semilunar cartilage, which sometimes may be seen separated, or at other times it is twisted or curved up, its end being drawn to the interior of the joint. This incision certainly easily exposes the entire line of articulation. It has, however, the disadvantage of cutting the capsule transversely and thus weakening it so that some operators prefer to make a vertical incision, as recommended by Allingham and MacCormac. This should be three to four inches in length in the long axis of the leg and three quarters or so internal to the patella, its center corresponding to the line of the joint. In regard to the position of the limb, there is more room in the flexed position, though either that or the extended one may be adopted. If possible the limb should be maintained throughout in one position to prevent blood from getting into the cavity. The structures from the skin to the synovial membrane should be divided in turn until the division of the capsule exposes the synovial membrane clearly at the bottom of the wound. All the superficial structures should be divided throughout the whole length of the wound, and only after all bleeding-points have been secured should the synovial membrane be opened. The cartilage may now come into view. One may proceed now in one of two ways, either suture, or excise and remove the cartilage. In mild cases the cartilage may simply be separated from its attachment to the head of the tibia, but it still may remain attached by its two extremities. In such cases Barker has been very successful by his method of suture. Two or more sutures of silk are passed through the fibrous invest-

ment covering the tuberosity of the tibia, then through the cartilage, and tied. Silk should be preferred to gut as it is more reliable. If the cartilage be fully separated from either its anterior or posterior attachments, the coronary ligament torn through, and the cartilage curled up, it is better to excise it. When the knee is in a flexed position this is almost always the case.

Generally, when a patient comes to operation it is only after he has suffered from repeated, recurrent attacks, extending generally over some length of time, and in these cases one will find that the cartilage has not only become separated from the end of the tibia, but its anterior or forward end has been torn loose from its attachment, and it will be found twisted inward toward the middle of the joint, that is, the intercondyloid notch. In these cases one will only be able to pull the cartilage out into its former normal position by means of a hook, and with some considerable force. Even when replaced if it is released from the hook it will retract again into the middle of the joint. It would seem here that if the method of suture were used there would be considerable tension upon the sutures, and one could not but feel that perhaps the union might not be sufficiently firm between the separated portions so that should the knee be twisted the cartilage might again become dislocated, and for this reason it is suggested that the method of excision be employed for this class of cases. This procedure is recommended by Bull, MacCormac, and March. It is a more radical and a more certain method than that of suture, yet it might be open to the theoretical objection that the joint would not be as strong after the cartilage had been removed. It has been found by practical experience, however, that this weakening of the joint does not occur, and that the patients walk perfectly well. The cartilage should be cut away at the point where it is separated from the head of the tibia and the end bevelled off.

One has now to consider whether to irrigate the joint or not. In those cases in which there has not been much effusion, in which the joint has not been subjected to much manipulation during the operation, in which extensive dissection has not caused much hemorrhage into the joint, and in which no previous disease has existed, it is probably unnecessary to irrigate the joint. If, on the contrary, these conditions exist, it may be well to wash out the joint with normal salt solution. When there has been no irrigation the capsule can be entirely closed without drainage. The wound must be closed with great care, the synovial membrane, the capsule, and the exterior structures being sutured with fine catgut. The sutures should not be placed too close together, thus preventing the easy escape of fluid should effusion arise. A plaster-of-Paris bandage is next applied. At the end of seven days, when primary union has occurred, the dressing is removed and passive motion and massage is begun. In order to protect the joint and give the patient a feeling of security an apparatus may be worn and the patient allowed to move about. The prognosis is good, for, after a careful study of the literature covering the past five years, including about one hundred cases, there has not been found a reported case of death following these operations.

Through the courtesy of Dr. W. T. Bull I am able to report the following case in which I assisted at the operation:

Case I.—Male, aged twenty-one years. In the fall of 1892, while playing football he slipped, fell, and twisted his right knee. He felt something snap and give away. This was followed by an acute attack of synovitis, which confined him to bed about four weeks. One year later, while running he fell and twisted his knee again, and had considerable pain over the inner side of the joint. He could extend the leg only with difficulty and with much pain, and was confined to bed five weeks. He went about on crutches for three weeks, and later was obliged to wear a rubber knee-cap. Eight months later his knee gave away, he fell, and another attack of synovitis followed. Eighteen months later he again fell and twisted his knee, and was unable to extend his leg until after it had been manipulated. The physician in charge diagnosed a floating cartilage, an incision under cocain was made, but no cartilage was found. An apparatus was then applied, which immobilized his knee for several weeks so as to permit him to walk about. Six months later his last attack occurred, which was much more severe than any of the previous ones. After the effusion had subsided, it was possible at times to feel the dislocated cartilage at the inner side of the joint at the level of the articulation.

On February 15, 1897, he was operated upon under ether. A vertical incision four inches long was made on the inner side of the knee-joint, in front of the lateral ligament, midway between it and the inner border of the patella. The structures were carefully divided so that there was very little bleeding. On opening the capsule the internal semilunar cartilage was found to be absent from its normal position but it was easily recognized. Its tip had been torn away from its anterior insertion, and it was separated from its attachment to the head of the tibia for a distance of about two inches backward. Its tip was curled up and projected inward toward the center of the joint. This was drawn outward by means of a tenaculum and was cut away from the tibia at the point where the separation began, the stump being bevelled. The capsule was closed with catgut and the outer structures with silk, a small gauze drain leading down to the joint. A large sterile dressing, strengthened by a plaster-of-Paris

splint, was finally applied. The gauze drain was withdrawn at the end of seventy-two hours. Primary union resulted, passive motion and massage were begun within three weeks, and the patient walked at the end of four weeks. Eighteen months have elapsed since the operation without the recurrence of any further trouble, and the function of the joint is good. He went to the front in the recent war, and has been perfectly satisfied with the result of the operation.

As a matter of interest and for the purpose of further increasing the statistics, I add the following reports of cases:

CASE II.—By Dr. W. T. Bull. Male, thirty-five years of age. One year previously he slipped and twisted his left knee and was unable to extend the leg. Synovitis developed and his knee was confined in plaster of Paris for three months. During the previous three months, his knee-joint had been "locked" several times; it had been very painful, and had incapacitated him from his work. Moderate effusion was present, and an area of tenderness existed over the inner side of the joint. A transverse incision was made to expose the joint. The internal semilunar cartilage was seen to be separated and dislocated inward. It was excised, and the structures sutured as in the preceding case. Drainage was also used. The recovery was uneventful. He walked on the twenty-first day and at the end of a year was in excellent condition.

CASE III.—By Dr. W. T. Bull. Male, aged forty years. Four years previously he fell and struck on his left knee. Ever since he had had more or less pain on the inner side of the joint. It had been swollen and at times had been "locked," so that he had a constant feeling of insecurity. A vertical incision was made at the inner side of the joint, exposing the internal cartilage. It was separated and dislocated. It was excised and the joint drained as in the preceding cases. He walked with crutches on the twentieth day, and a year later was still in good condition.

CASE IV.—By Dr. V. P. Gibney. Male, aged nineteen years. Four years before he slipped and fell, twisting his left knee. Synovitis developed and left his knee somewhat weakened. He had had several recurrent attacks so that his knee remained more or less tender, especially over the inner side of the joint. Several months before he discovered a movable body, which slipped under his finger. A vertical incision was made, which revealed a dislocated semilunar cartilage. This was excised and the joint sutured without drainage. A plaster-of-Paris bandage was applied. Recovery was uneventful, and at the end of four weeks he walked without lameness.

CASE V.—By Dr. V. P. Gibney. Male, twenty-one years of age. Five years before, while playing tennis, he slipped and fell. There was considerable pain over the inner side of the right knee-joint. Synovitis developed. This recurred several times, leaving the knee weaker and more insecure. Several times he felt a movable body at the inner side of the knee. A vertical incision was made, which showed a portion of the right semilunar cartilage to be separated and dislocated. The end, which had become pedunculated, was excised, and the incision was closed without drainage. Recovery was uneventful.

CASE VI.—By Dr. V. P. Gibney. Male, twenty-two years old. During the previous three years he had had recurrent attacks of slipping, falling, and twisting of his right knee. Synovitis followed each time, so that when seen he suffered from subacute synovitis. A vertical incision exposed the joint, showing the right internal semilunar cartilage to be separated and its tip displaced inward. This was excised and the joint closed without drainage. Recovery was uneventful. One year later the patient reported his condition as being excellent.

DISCUSSION.

DR. BREWER said that the members of the society should be extremely grateful to Dr. Walker for his very practical exposition of this interesting question of loose cartilages in the knee-joint. He himself knows two or three patients who are almost helpless from this affection, one a young woman, who spends from one to three months in bed a couple of times a year or oftener with acute synovitis from this cause and whose life is made sadly miserable. Operation is usually not advised in these cases because it is not known that opinion is yet definitely settled as to the definite value of surgical interference or as to its justifiability except in extreme circumstances. He thinks that in the etiology of loose and displaced cartilages Dr. Shaffer's explanation adds an important element to previous theories. The cases in which displacement occurs are wobbly joints, in which all the ligamentous attachments around the joint are looser than normal. He has found this to be true in his own cases and has even been able to demonstrate by actual measurement that the patellar ligament was larger than normal.

He has seen some surprising spontaneous recoveries. In one case after three severe attacks each more bothersome than the preceding one he advised operation, but it was refused. Afterward there were three milder attacks all in the same leg, then a slight attack followed by a severer one in the other leg; yet with care and a sedentary occupation no further attacks occurred. It is now some three years since the last one and the patient made the campaign in Cuba with the Rough Riders during the late war and has returned absolutely without having had a symptom of knee-joint trouble while soldiering.

DR. BROWN said that his experience was mainly personal. Twice in football practice he has had the symptoms develop that are usually thought to indicate displaced cartilages in the knee-joint and yet has recovered perfectly and though that is now some time ago has had no bother since. He knows of a number of cases where the diagnosis of displaced cartilage was made and yet complete recovery has followed rest. He supposes, however, that these are the milder cases.

DR. FISKE thinks it scarcely justifiable to compare the knee-joint to the abdominal cavity, or to

suggest that an exploratory incision of the knee-joint should be made with practically as much freedom as an exploratory laparotomy. The lymphatic supply of the peritoneum is better, its vitality higher and it is better able to deal with infection. We can at present open the large joints with much more safety than we could some years ago but there must be a very serious reason for there is still great danger in the procedure. For loose cartilage, for instance, operation is indicated only after a thorough trial of conservative methods has failed. He thinks that Allingham's plan of suturing all the different planes of tissue above the joint as detailed by Dr. Walker is a good one. In the extraction of floating cartilage, however, when the object can be cut directly down upon or when it can be coaxed into a favorable position for removal, the small incision necessary may be simply closed with a piece of rubber tissue. He has seen this plan give excellent results in Dr. Abbe's hands in a number of cases.

DR. WILCOX said that from his personal experience he thinks he can say that a dislocation of the semilunar cartilages must not be frequent. On four different occasions he has had extremely bad wrenches of his knee. Considerable acute synovitis has always developed, but he has never had any subsequent symptoms pointing to loose or displaced cartilages.

DR. WALKER, in conclusion, said that not every case is suitable for operation but only the inveterate ones in which other methods have been tried and have failed. Certain patients seem to get entirely well under rest and apparatus. These are the ones in whom the middle of the cartilage is detached but not the ends. Reattachment takes place then rather readily under favorable conditions. It is true, doubtless, that the synovial membrane will not stand manipulation and infection quite so well as the peritoneum, but the fact remains that it will stand them much better than has been thought. In any operation for the condition there is always a certain element of exploration for a definite positive diagnosis before operation could be made with certainty but very rarely. In answer to the question if there is usually not a depression over the spot where the cartilage should be but is not, Dr. Walker said that usually in these patients when they come for treatment there is an effusion into the joint that obliterates the depression that would otherwise exist. In patients who come after the acute stage had passed there have usually been several attacks and so a chronic synovitis with a certain amount of persistent effusion existed to obscure the valuable symptom of depression.

In reply to a question as to the frequency of displaced cartilages he considered that his experience and knowledge of the literature on the subject enabled him to say positively that the affection is not frequent and it is even probable that some cases diagnosed as displaced semilunar cartilages are really only cases of acute traumatic synovitis.

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FURUNCULOSIS; ITS ETIOLOGY AND TREATMENT.

BY H. H. STONER, M.D.,
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A SPECIAL notice of an apparently so insignificant and common affection as boils seems to be beneath the dignity of medical writers in general if the dearth of literature upon the subject may be taken as a criterion. The great variety of remedies that has been hurled against this ignoble visitant is proof to my mind that its etiology has not been as well understood as it might have been, hence, the profession is not agreed as to its best mode of treatment. While each remedy may meet with a certain amount of success, none of them will be found to be a specific. Among the many remedies employed may be mentioned poultices, arnica, asaprol, calcium sulphid, camphor, carbolic acid, colchicum, hypophospites, menthol, pyoctanin, sodium phosphate, turpentine, bichlorid of mercury, yeast, and a host of others.

Let us inquire into the cause of this provoking disorder and see if we cannot therefrom arrive at a more rational mode of treatment. I believe all will agree that suppuration is directly due to the presence of pus-producing organisms; that being the case it must necessarily follow that furuncles are caused by the same agency. The ubiquitous staphylococcus pyogenes aureus is the responsible organism in the great majority of cases, although the staphylococcus pyogenes albus and citreus may sometimes be found to be the cause.

Boils are not due to an internal dyscrasia. They are purely a local affection. It is true that in some conditions of disordered metabolism, such as diabetes, in which the resisting power of the tissues is diminished, the pyogenic cocci flourish in the form of furuncles, with but feeble opposition to their development. Barring such circumstances the condition of the system at large has nothing whatever to do with the development of this form of phlegmon. The germs gain access to the deeper parts of the skin through the avenues of the hair shafts and sweat-glands. In the great majority of instances the hair-shafts furnish the most accessible route for their entrance, as may be demonstrated by observing in its incipiency the presence of a hair projecting from the apex of the inflamed and tender little elevation. The germs after gaining entrance to a hair-follicle rapidly multiply and the contiguous blood-vessels become engorged and finally occluded, with the result that the tissues in the immediate neighborhood become necrotic. The classical symptoms of inflam-

mation continue until the pus formed is evacuated, either by natural or artificial means, when if the necrosed portion has not already been liquefied it comes away in a mass. This is the core which is so often seen in this affection. The pus which escapes from the abscess is laden with micrococci and in this stage, at their height of activity, they are in their most virulent form and will readily inoculate any follicle with which they are allowed to come in contact. This is the time when the surgeon will be able to do most for his patient. I am convinced that there is no treatment that will abort a boil when it has once gotten thoroughly under way. I am certain, however, that a successive crop of boils can be prevented by very simple means. Furunculosis owes its etiology, as above intimated, to infection of neighboring follicles from the pus-producing organisms present in a pre-existing furuncle. The subject of this distressing ailment is prone to handle and fuss with it, with the result that the germs become deposited upon his fingers and beneath his nails. By this means they are readily conveyed to remote parts of the body by the act of scratching. Probably the most fruitful source of infection is through contamination of the clothing worn by the patient. An individual suffering from a small furuncle which scarcely causes enough uneasiness to attract his attention allows it to point and break without any care upon his part. The consequence is the pus-cocci are deposited upon his undergarments and a number of local points of infection develop upon the body which has come in contact with the infected clothing. The bedclothing may be in like manner contaminated, producing infection in distant parts of the body; or if the abscess contains a greater amount of pus at the time when it breaks the pus may run in a stream for a certain distance along the skin infecting every follicle in its path. Such is the history of small furuncles. Larger ones which demand the attention of the patient fare but little better. They are usually poulticed, with the result that the heat and moisture enhance the vitality and activity of the pyogenic organisms, and a greater amount of necrotic tissue is produced, so that the temporary alleviation of the pain due to poulticing is more than counterbalanced by the evil it produces. In this form the abscess is usually treated by covering it with a light dressing, but no care is taken to prevent the disease-producing germs from coming in contact with the contiguous surfaces of the skin, hence, several abscesses of varying degrees of severity are liable to develop in close proximity.

I mention the theory of the transmission of pyogenic germs to distant parts through the medium of the lymphatics only to dismiss it, as I am satisfied from observation that an overwhelming majority of cases may be traced to the source above described. If the theory I have outlined is based upon sound principles, and I believe every careful observer will agree with me that it is, the rational treatment of furunculosis should consist in confining the germs within their original abode. How thoroughly this precaution may be carried out will depend much upon the care and intelligence of the patient, and much upon the location of the furuncle. Patients suffering from this disease are seldom confined to bed and are more or less active. There is frequently found certain locations upon the body where it is well nigh impossible to so adjust a dressing as to preclude the possibility of the surrounding parts being constantly bathed with the exuding pus. Here the local application of antiseptics stands first and foremost among measures intended to frustrate the infection of contiguous tissues. Bichlorid of mercury in strong solution, 1 to 500, far transcends any other antiseptic. It should be mopped upon the unbroken skin for some distance about the abscess. The limits of the area to be so bathed will depend upon the amount of pus escaping and the facility with which it can be absorbed by the dressing and confined to the immediate region of the abscess. Such an application should be made twice each day. The abscess cavity should be carefully irrigated with a weak bichlorid solution. A piece of soft lint should be moistened with the solution, 1 to 2000, and laid upon it, over which should be placed a sufficient amount of absorbent cotton to absorb the discharge. Over this, if possible, should be applied a well-fitting bandage. If the patient himself attends to the dressing he should be taught to carefully disinfect his hands afterward. By following out this line of treatment the condition of so-called furunculosis will disappear with the healing of the original points of infection.

As to the abortive treatment of an individual abscess I have stated above that we are not in possession of any remedy capable of exerting such a happy effect. Carbolic acid, by injecting into the substance of the boil, has been more extensively employed than any other remedy, but that it as often meets with failure as with success will be attested by every surgeon who has given it a fair trial. The passage of a needle into an inflamed and highly sensitive furuncle is painful in the extreme and most patients would prefer to let it pursue its natural course rather than be subjected to several such injections with the hope but not assurance of its abortion. Bichlorid of mercury, in 1 to 500 solution, diligently applied, will be found to be equally if not more successful. It has the further advantage that its application is not pain-

ful. Cases will many times be encountered in which the original point of infection has not been properly cared for during or after its eruption. Scattered round about this mother boil will be seen numerous small fledglings in various degrees of incipiency which if left untreated will bloom into full-fledged boils. Here the so-called abortive treatment possesses much efficacy. If the strong solution of bichlorid is thoroughly mopped upon these minute points of infection it will almost certainly result in the destruction of the pyogenic organisms which has produced them. The little elevations will dry up and their career will be ended.

In summarizing, I repeat that the so-called condition of furunculosis is a misnomer; that it is not a constitutional disease to be treated by internal remedies, but that it is simply the result of local points of infection originating from a parent source; that its treatment should consist in limiting the pus-producing agency within the bounds of its starting-point, and when this is not practicable, to destroy the pus-cocci by a strong solution of bichlorid of mercury before they are able to start new points of infection; that the so-called abortive treatment has little to commend it except in the very incipiency, and that a strong solution of corrosive sublimate is the agent *par excellence* to be depended upon for this purpose.

SPECIAL ARTICLE.

THE GARRISONING OF OUR TROPICAL POSSESSIONS.

No. 3.

THE SANITARY WELFARE OF PUERTO RICO.

By AZEL AMES, M.D.,

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WHILE the series of articles of which this is the third is written with especial reference to the sanitary welfare of the American troops garrisoning our tropical islands, and primarily in their interest, it is impossible to intelligently discuss certain factors of the complex sanitary problem which this new dependency of the United States in the Antilles presents without consideration of broader and precedent conditions.

The island of Puerto Rico, lying between latitude 17° 54′ and 18° 30′ 40″ north, and between longitude 9° 34′ and °11 25′ east from Washington, is the most southerly of our recently acquired possessions (of any area) in the West-Indian Archipelago and constitutes in itself a Military Department or District of the United States. Standing, as it henceforth will, as the outpost of the American Republic in the North Atlantic every dictate of self interest and of patriotic pride should impel us to make it, in every feature, civil and military, fully the equal if not the superior of the British representations in the Bahamas or Jamaica, of the French at Guadaloupe or Martinique, or of the Danes at St. Thomas or St. Croix.

Although acquired by force of arms and hence technically conquered territory the *intente* and policy of the United States toward its people differs widely from that usually exercised under similar relations and materially affects the problems of its new rule. Of these problems none is so basic and important as that relating to the conduct of its sanitary affairs, whether considered with reference to the troops that form its garrisons or to the people who are its civil inhabitants.

It is doubtless fortunate for both that its governmental control is, and probably must be for many years, distinctly military, because it insures a degree of order and of stability in rule and in commercial affairs impossible to any other, and because it makes practicable methods, measures, and achievements, purely sanitary in character, not attainable under any but ample military authority. It is equally fortunate that the relation of the island to the United States is that simply of a Military Department or District, because as the "Orders" of the Military Governor, the General commanding the Department, are the *lex suprema*, we have in them a code of law alike simple and comprehensive, rarely difficult of interpretation and free from the entanglements of legislative enactment, and because, as a Department or district there is abundant Constitutional authority,[1] as well as precedent, for provision by Congress for all its requirements, without the involvements that attach to a territorial status.

Subject as the people of Puerto Rico have been for hundreds of years to the rapacious, tyrannical, and debasing rule of the Spaniard, the firm but kindly policy of the American Republic and that honest and efficient conduct of affairs which has everywhere characterized the officers of its Army can but produce appreciative and responsive efforts on the part of the people of the island as soon as their confidence is secured and the stimulus of example has had time to work. It will be helpful to an intelligent grasp of the subjects matter later under discussion if at the outset we briefly consider some of the conditions, natural, social, and governmental which more or less intimately and seriously affect the sanitary welfare of Puerto Rico, its garrison, and its people which existed at, or immediately upon, the formal surrender of the island to the Americans in October, 1898.

Situated in the semitropics, sea-girt, yet closely adjacent to numerous islands similarly conditioned and in close commercial contact with them; thrown up by some mighty submarine upheaval that made the coral reefs of the sea-floor its mountain crests; having an area of 3368 square miles of astonishingly broken and diversified surface, everywhere well watered and covered with luxuriant vegetation to its mountain-tops; having a heavy average rainfall and a mean temperature of 72° F.; its food-products chiefly those common to the semicultivation of the subtropics under Western European rule, Puerto Rico presents an assemblage of natural features and conditions, which have been proven by ample experience,

[1] Constitution of the United States, Art. IV., Sec. 3. Acts of Congress in aid of Alaska and Indian Schools.

decidedly inimical to the health of the Caucasian permanently resident and none too friendly to the native. The intense heat, alternated with frequent and heavy rainfalls; the supersaturation of the rich, alluvial soil; the extreme humidity from these and its sea environment; the rank growth and equally rapid decay of its vegetation, and the lack of sufficiently nutritive properties in its food-products are the most potent of the natural conditions provocative of disease in this beautiful island.

Upon these natural conditions and the native stock of Columbus' day have been engrafted from nearly every nation and clime a population formerly as heterogeneous as could be found in equal compass under the sun. Native, Spaniard, Malay, Corsican, Frank, Berber, Greek, Mongolian, and Hebrew, with now and then an infusion of British and American blood, have mingled here till some degree of homogeneity, with a few dominant strains, has resulted, some 300,000, according to the census of 1887 being blacks. The aborigine, long since blotted out by the vices and cruelty of his Spanish conquerors, gave place to the "flotsam and jetsam" of the Atlantic and Caribbean Sea, often the stranded buccaneers of Drake's, Hawkins', or Morgan's ships, the Malay or Greek corsairs, or the Frankish or Corsican pirates of the Sixteenth and Seventeenth Centuries. Under the iron hand of the Spanish rule and the no less powerful sway of the Roman Catholic Church came order, and in time, organization, some measures of tranquility and great prosperity. With the suppression of piracy the pursuits of commerce and agriculture became dominant and have been, for more than two centuries, the principal interests of the population.

It will doubtless be a surprise to many to learn that this population is not only greater than that of the State of Connecticut (being slightly larger numerically, upon a slightly smaller area), but is far more evenly distributed, making the whole island much more closely populated than Connecticut, as a large part of the population of that State is in its cities and large manufacturing towns, while Puerto Rico has few of the former and none of the latter. By the Spanish census of 1887 there were, approximately, 814,000 inhabitants, or, approximately, 220 persons to the square mile, and to state this is to name a most important factor of every sanitary problem. Of the personal characteristics of the mass of the population and their habits we have no need to speak except as they bear upon the question of sanitation. Indolence and laxity of morals everywhere surely beget poverty and disease. Both are "fast-colored" in Puerto Rico by the climate, the primitive condition of life, and the ease with which its actual necessities are met, while the rapacity of Spanish rule has doubtless done much to suppress ambition and promote pauperism and crime. Nowhere is the admirable Bavarian system of Count Rumford as preventive of pauperism among the people and idleness in the army more needed than here. Of course filth is everywhere a menace to health and filth conditions in and about the home are all too prevalent in Puerto Rico.

It is sad but true that there is very little of either religion, morals, or education in the island, though a laudable effort to establish schools has been made by some municipalities. The marriage relation is lightly held and an amazing proportion of the children are illegitimate. It goes almost without saying that with this large and mixed population so long under such rulers and in a tropical climate, every zymotic disease, every miasmatic influence, every contagious and infectious germ, finds congenial breeding-ground, and that malaria, smallpox, typhoid, venereal infection, etc., might be expected to sharply assert themselves, as they do. It is not intended, however, in this paper to more than outline those conditions which compel the consideration of efficient sanitary administration, leaving to later contributions the review of particular features, their relations, regulation, and control.

Upon the natural and social bases described and the wreck of Spanish misrule the United States military authority undertook upon its accession to establish a government for this insular Department. In accordance with the conciliatory policy of the administration at Washington certain heads of departments of the late Spanish Government at San Juan were retained, and an effort was made to galvanize into life and to engraft upon American Constitutional and Military Law and Practice the dead enactments of the defunct Spanish power. Both these steps, though undoubtedly taken with the best intentions and in the interest of good order and the least possible disturbance of existing conditions, appear in the light of experience, then lacking, to have been mistakes. That they have been productive of much misunderstanding, some distrust, and little good, cannot be doubted. Their bearing upon important sanitary measures will duly appear.

It is evident that the acts of municipal and other authorities of Puerto Rico, especially such as relate to taxation, land titles, the issue of municipal bonds, etc., *must* have sound and sufficient basis of law beneath them. Indeed, a fair and competent test of the adequacy of the law upon which a municipality and its acts stand is the salability of its debentures. If the organic act by which a town or city exists, and the law upon which each of the acts essential to the proper issue of its indebtedness certificates is based, can pass the scrutiny of the bankers of our money-centers, the legal as well as the financial status of that municipality, its officials and its issues may be safely considered sound.

The fact will readily suggest itself that the construction of sewers, which every principal city of Puerto Rico is practically without and sorely needs; of water-works and their improvements; of markets and abattoirs; of garbage and other crematories; of public baths, etc., all of which are seriously and zealously contemplated by the principal municipalities will require them to negotiate loans by sale of their bonds or other promises to pay. For these bonds to have any negotiable value in such money-centers as New York, Boston, or London, their legal status must, as already stated, be unimpeachable. The same will hold good of any boards, commissions, or other bodies upon whom may be devolved by the conjoint action of municipalities, or of the government with some of them, the construction of sanitary or other public works and of their debenture issues.

It is plain, therefore, that the creation of the larger and more important sanitary works, from which the most essential improvements in hygienic conditions must chiefly come, must depend (so far as they are municipal or conjoint constructions) upon the soundness of the legal basis upon which these cities and their negotiable securities rest. This basis hence becomes the foundation of the sanitary welfare of Puerto Rico, alike of its garrison and of its people.

Yet no satisfactory basis has existed since the advent of American rule, or seemingly can exist, until by adequate decrees and orders of the Military Governor (the supreme, the only valid law possible to this insular Military Department, except the Acts of Congress of the United States) due and proper existence is given to municipal alcaldes and councils, assessors, tax-collectors, registrars, constables, etc. The Spanish law is dead with the hand that gave it life and that alone could enforce it. It could not be revivified by any sweeping and inclusive order of a military commander. Its verbal incongruities alone forbid, while the grave incompatabilities which attended the effort to engraft its moribund decrees upon the virile American Constitutional and Military Law and Practice could not fail to prove abortive.

If it is desired to put in force certain provisions of the former Spanish law which commend themselves nothing can be easier than for the Military Governor, by the plenary power vested in him, to enact them by "General Orders" into that code of unassailable law which his successive and in nowise restricted "Orders" are building up as unimpeachable law for Puerto Rico. If, to carry forward in the only safe and practicable way apparent, the desire of the President and people of the United States, that the people of Puerto Rico shall be, as far as wise, given the management of their purely local affairs and be taught experimentally American methods of municipal control, it will be an easy matter for the Military Governor to create by "Orders" new charters for municipalities; to appoint proper enrolling officers for such districts of the island as he sees fit to establish; to fix the eligibility qualifications for enrollment as voters in these districts; to indicate the officers for whom they shall vote; to order and regulate the holding of elections for such officers, *e.g.*, alcaldes, councillors, constables, etc.; and to provide for their proper installation into, and the conduct of, their respective offices, etc. He would thus, at once, and by law and authority which cannot be questioned, while abating no particle of his power of veto or control, lay solidly the primary foundations of that local autonomy which the people of the United States and those of Puerto Rico alike desire the latter shall enjoy, and put the municipalities on a footing at once simple and satisfactory to the most critical investor.

Until this shall be done it is gravely to be feared that those cardinal improvements necessary to the sanitary well-being of some of the principal places cannot go forward from the inability of these cities to obtain, by pledges of their credit, although perfectly sound financially, the requisite funds. In such places only such improvements as the annual tax levy can meet, or as—from the benefit to accrue directly to the troops—may be met from the military chest, can be attempted.

It is so often impossible to secure sanitary conditions of primary importance to troops, as in matters of water- and food-supplies, sewerage, disposal of garbage, etc., except as general provision is made for the municipalities they garrison, that one is constantly reminded in military hygienic undertakings, as in civil, of the epigram of John Simon when Medical Officer of the Privy Council of Great Britain, that "We can only secure our own immunity from disease by caring for the health of our less-fortunate neighbors."

When troops are garrisoned in or adjacent to populous communities both are of necessity a constant menace to each other's health, as the experience of Spanish troops quartered in Puerto Rican and Cuban cities has so often attested. Under the advance in science, however, now available, and the control of a Nation of the high intelligence and resources of the United States to-day these danger conditions ought not only to be reduced to the minimum, but soldier and citizen ought to be intelligent and effective allies in promoting this reduction. Of the duty of the Nation itself it will not be gainsaid that to our representatives in arms in this outpost in the Antilles we owe every care, protection, and support that it is in our power to give, and to the people of Puerto Rico we owe the fullest recognition of the fact so well expressed by Kidd,[1] that "*We hold these new dependencies in trust for civilization.*"

A sound legal foundation, competent organization, executive men, and elementary education upon domestic hygiene among the children are the chief agencies demanded for the sanitary welfare of Puerto Rico to-day. The all-important relation which the garrison troops of the United States sustain to the general sanitary welfare and the considerations especially affecting the army itself will afford matter for my next paper.

MEDICAL PROGRESS.

The Ultimate Results of Curetting the Uterus for Puerperal Infection.—FERRE (*Centralbl. für Gyn.*, November 5, 1898) gives the results of thirty-four cases of curetting of the uterus for puerperal infection, and proves from these that curetting is a better treatment than irrigation, not only in its immediate effects, but also in the ultimate results. In instances where irrigation was the only method of treatment employed, recovery was often followed by subinvolution of the uterus, inflammation of the adnexa, and occasionally peri-uterine infiltration with pain and suppuration. Consequently curetting is to be advocated rather than simple intra-uterine douches.

Formation of Joints between Bones Normally Independent.—OLLIER (*Centralbl. f. Chir.*, October 22, 1898) showed long since that it is possible in men and in animals to create a joint between bones whose normal joint surfaces have been destroyed. Now he has gone a step further in his surgical attempts, and has succeeded in reestablish-

[1] Benjamin Kidd, "The Control of the Tropics."

ing motion at the shoulder, in a man who had lost the head of the humerus and the whole of the scapula in an accident twenty-two years previously. The arm hung helpless at the side. Ollier dissected the upper end of the humerus free from the scar tissue, resected a small portion, preserving the periosteum, and stitched both the bone and its periosteum to the clavicle, using two platinum stitches which were left in place. If a bony union had taken place there would still have been sufficient motion in the sternoclavicular joint to enable the patient to use his arm to some extent. There followed, however, only a fibrous union so that there was fairly good motion between the bones, especially in the anteroposterior direction. Particular attention was given at the operation to the separation and suture of the deltoid and other muscles about the joint, so that they should have a point of support on the clavicle and its fibrous attachments. The bandages were changed at the end of ten days, but the arm was kept immovable for four months. It appeared at first that there was bony union, but this soon became fibrous, and after years of practice, the joint had become a really good one, and the strength of the atrophied arm had so far recovered that the patient could carry as much weight with one hand as with the other, and without any apparatus he could put his hand on the opposite shoulder or the top of his head.

On the Nature of Immunity and the Cure of Infection.—EMMERICH and LOEW (*Munch. med. Wochenschr.*, November 8, 1898) have made important discoveries regarding immunity and the healing of infectious diseases. The full reports of their investigations have not yet been published, but the practical results are thus summed up by the investigators:

1. Many times a culture of bacteria will cease growing, although there is sufficient nutritive material, and the surroundings are favorable. This cessation of growth is due to the presence of enzyms which are formed by the bacteria themselves, but which ultimately dissolve the bacteria.

2. There are bacterial enzyms which are not only capable of destroying their own particular kind of bacteria, but other kinds as well, including pathogenic ones.

3. Since these bacteriolytic enzyms are capable of destroying bacteria in the living body, there is a possibility of stopping infectious processes by their use. For instance, it is possible to cure an otherwise surely fatal infection with anthrax inside of thirty hours by means of the enzym of bacillus pyocyaneus. Since a single cubic centimeter of this enzym solution will destroy in twelve to twenty-four hours millions of diphtheria, cholera, or typhoid bacilli in a test-glass it is possible that it may have the power of healing these diseases if rightly applied. It has a similar action upon the bacillus of the plague.

4. Bacteriolytic enzyms are soon destroyed in a living body, and for this reason, although it is possible to cure an infectious disease, it is impossible to confer immunity for any long period of time. The enzym may, however, be combined in the laboratory with an animal albumin so that it will remain unchanged in the living body and confer immunity against particular kinds of infection. The investigators succeeded in this manner in making a rabbit immune to anthrax, and a guinea-pig immune to diphtheria. The so-called agglutination is the first stage of the destruction of the bacteria by the enzyms.

5. The difference in the reactions obtained with any given immunizing serum in the laboratory and in the living body is due to the presence or absence of oxygen. If this is excluded from the test-glass specific pathogenic germs in a test-glass are not only agglutinated, but killed and dissolved, a fact which has been shown by experiments upon the bacilli of cholera and typhoid.

The Oppler-Boas Bacillus in the Diagnosis of Gastric Carcinoma.—KNICKERBOCKER (*Phil. Med. Jour.*, November 19, 1898) discusses the importance of the Oppler-Boas bacillus in the diagnosis of carcinoma. It is an unusually long, non-motile, thread-like bacterium, found in the contents of carcinomatous stomachs. The germs lie end to end or at right angles to each other. So far as is known, it never appears in the presence of hydrochloric acid. Numerous observers have confirmed the presence of these bacilli in enormous numbers in cases of gastric carcinoma, and their absence, accompanied by the absence of lactic acid, in the presence of pyloric stenosis, is an argument against carcinoma. The best opinion seems to be that this bacillus, while not pathognomonic of gastric carcinoma, is very important in the diagnosis. The bacillus stains readily with the anilin dyes. Knickerbocker's experience coincides with that of the European observers, and from it he draws the following conclusions:

1. That, while not pathognomonic of carcinoma, the presence of the Oppler-Boas bacilli is of the utmost diagnostic value.

2. That their presence may be demonstrated in nearly all cases at some stage of the disease.

3. That in a large number of cases the bacilli may be found before the tumor has involved surrounding structures to such an extent as to make extirpation impracticable.

4. That in a limited number of cases the bacilli may be found before palpable evidences of tumor.

Sexuality in the Etiology of Neuroses.—FREUD (*Centralbl. f. inner. Med.*, November 5, 1898) laments the disinclination of patients and physicians to examine into the sexual history of the individual who is suffering from any neurosis. He makes the broad statement that in every case of neurosis there is a sexual etiology which can be brought out by the examination in the case of neurasthenia but which rests upon the sexual experiences of childhood in the case of psychoneuroses, and these have been often forgotten. Among neurasthenic patients there are two forms, distinct symptomatically and etiologically. One of these is marked by headache, lassitude, dyspepsia, spinal irritation, constipation, etc., and is due to excessive masturbation, or to frequently repeated nocturnal emissions. The other form is characterized by a sort of fear or anxiety, and is due to ungratified desire, as the result of interrupted coitus, etc. Some patients are seen in whom the occurrence of both causes have produced some of both classes of symptoms. The usual

therapeutic measures are directed to the strengthening of the individual, and to the preservation of his strength. They often fail of their purpose, because they do not take account of the sexual conditions of the patient. There are two new principles to be added: The overcoming of the habit of masturbation, which can only be accomplished in a sanatarium, under the constant supervision of the physician, and later when the aroused sexual appetite will no longer be suppressed, the introduction of a normal habit of coitus. Here the physician finds himself opposed to social problems. In the case of married people who are unwilling to have children, he must not refuse to listen to their difficulties, or he will only force them into their previous bad habits. Unfortunately, there is no means of preventing conception which fulfils all the requirements. Psychoneuroses, which are the result of unconscious sexual experiences in childhood, require a different treatment, and at the best are only to be mastered by much effort and patience.

THERAPEUTIC NOTES.

A Simple Method of Curing Aphonia.—ABRAMS (*Ther. Gaz.*, November 15, 1898) has used successfully the following simple method of curing aphonia. He marks with a pencil on either side of the neck the point where the superior laryngeal nerve sends its internal branch into the larynx. This is the nerve of sensation for that organ, as will be remembered. Then with chlorid of methyl, or a spray of rhigolen he freezes thoroughly the spots marked. The relief is in most instances instantaneous, and phonation which before was difficult or painful, can be performed with perfect freedom. Sometimes the relief thus afforded is of only short duration, and the freezing must be repeated one or several times. The method is relatively painless, and the results are phenomenally good. It is often of value, too, in neuroses of the larynx, like laryngismus stridulus, spastic aphonia, and in the laryngeal crisis of tabes dorsalis.

To explain the action of the method, Abrams suggests three hypotheses: (1) Freezing may act as a counter-irritant and the results achieved may be due to local or reflex action. (2) Freezing may act by producing physical changes in the underlying structures. (3) It may act as a shock.

He rejects the first of these hypotheses on the ground that the reduction of temperature is never great enough to produce the results in this manner. For the same reason the second hypothesis must be rejected. To produce nerve degeneration, the freezing must be of inordinate degree, or frequently repeated, as shown by experiments upon rabbits. The third supposition is therefore the probable one, *vis.*, that the cold acts as a shock and inhibits nerve action for a variable period. To inhibit the pathological action of a nerve, expresses the ideal attainment of therapeusis, and the advantage to a professional of regaining the use of his voice, even for a short time, needs no proof.

Septicemia Successfully Treated by Venesection and Infusion of Salt Solution.—YOUNG (*Maryland Med. Jour.*, November 19, 1898) reports a case of appendicitis in which operation was performed upon a fifteen-year-old boy. The appendix was found in an abscess cavity. It was removed and the abscess drained. The patient's condition was good during the day, but late in the evening the temperature reached 103° F. and the pulse 118. The condition grew worse the following day, and in spite of stimulants and enemata thirst and vomiting increased. Seven hundred c. c. of normal salt solution was injected beneath the right breast with no appreciable result. At 7 P.M., 36 hours after the operation, the temperature was 105.8°, pulse 156. The condition was one of general septicemia, and it was evident that extreme measures were necessary in order to save the patient. Under cocain a large aspirating-needle was inserted into the right bacilic vein. The blood-pressure was so low that only two and a half ounces of blood escaped. Thirteen hundred c. c. (nearly three pints) of normal salt solution was slowly injected, about one hour being occupied in the operation. At the end of that time the pulse had fallen to 130, and the temperature to 104° F. The improvement lasted only a few hours, and at seven o'clock the following morning 2500 c.c. (two and one-half quarts) of salt solution was injected. The temperature and pulse dropped almost to normal, the patient passed large quantities of urine, and made an uneventful recovery. Young considers that this case proves the necessity of injecting large amounts of saline solution in order to cure acute sepsis. If four and one-half quarts were required in a delicate boy of fifteen, probably six or seven quarts would not be too much for an adult. At any rate, little good is to be expected from the injection of two or three pints.

Advantages of Beta-Eucain in Producing Local Anesthesia.—BRAUN (*Arch. f. klin. Chirurg.*, vol. 57, p. 370) gives the result of a long series of trials of different drugs to produce local anesthesia. He found that the amounts of morphin which Schleich recommended for his local anesthesia were so slight that they had no paralyzing effect upon sensation, but that morphin even in such small doses has the unpleasant effect of causing edema. This is particularly noticeable in regions of loose tissue (operation for phimosis for example). He found that the effect of cocain was perceptible in as dilute a solution as 1-20,000. His trials showed him that eucain "A" was somewhat irritating and far below cocain in anesthetic power. With beta-eucain, however, he obtained good results, as good as those with cocain itself, as like cocain it had no irritating effect on the tissues, and was effectual in very dilute solutions. As it is less poisonous than cocain, and can be boiled repeatedly without loss of power, and will not degenerate when kept in dilute solution, it has important advantages over cocain for general use as a local anesthetic. The following solution is recommended:

℞	Beta-eucain	gr. i
	Sodii chloridi	gr. viii
	Aq. dest.	ʒ ii.

The anesthesia produced by this solution will last from ten minutes to one hour, and there is absolutely no effect upon the healing of the wound.

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PROFESSIONAL DIGNITY.

THERE appeared recently in the columns of one of the New York daily papers an article with the striking caption, "Race against Death for a Keg of Beer." It contained an account of "one of the unwritten laws" governing the ambulance corps of a well-known city hospital, and stated that as a forfeit for bringing a corpse into the hospital in the ambulance the surgeon in charge had to set up a keg of beer for his fellows. In order to escape the payment of the forfeit when ambulance patients are very low and each gasp may be the last, ambulance-surgeons are represented as "standing in" with the drivers of the wagons. The idea of this collusion between driver and doctor, though not explicitly stated, being evidently for the purpose, should the doctor be in danger of incurring the forfeit, of having the driver whip up his horses.

We have waited over a week to see some correction of this story, but none has appeared. A little inquiry brings out the fact that while the unwritten law mentioned has not all the force of a Draconian edict, there is, nevertheless, a foundation for the newspaper story. Without any but the kindliest feelings in the matter, we would suggest that the procedure is scarcely in keeping with the dignity that is expected of members of the medical profession even though these promising scions are only just entering upon their career. We appreciate, of course, that the establishment of the custom is due to an overflow of youthful spirits at the discomforture of a younger professional brother, but there is a passage somewhere about putting off the things of childhood when one is no longer a child, that we commend to hospital residents' meditation.

Besides the lack of dignity we see the possibility of two sources of danger to human life in the custom as outlined. Accidents to ambulances on our streets are frequent and serious enough without the possibility of their being added to by reckless driving because a foolish forfeit is to be avoided. For the young and inexperienced ambulance-surgeon, and at times, too, for the older hand, the thought of the ridicule that will follow the bringing in of a corpse may sometimes seriously hamper the judgment in the matter of the doubtful cases in which a rapidly fatal issue seems not unlikely. At such moments the medical man needs all his diagnostic and prognostic skill, and a judgment absolutely unhampered by any thought but what is best for the patient. This may be the delay of a few minutes until some reaction has set in before the ride to the hospital is attempted, or immediate rapid transfer to the hospital for the sake of the better conveniences there. May we say then, not in any carping or acrimonious spirit (we were young once ourselves) that the hospital-ambulance system will be better without the unwritten law in question.

ANATOMICAL NOMENCLATURE OF THE NERVOUS SYSTEM.

WE publish this week an abstract of Professor Wilder's opening address before the recent meeting of the Association of American Anatomists. Our abstract represents fairly enough, as far as our space would admit, Professor Wilder's ideas, but we know that it does not do justice to his vigorous, finished style, and his persuasive method of presenting the subject. Some of the good points our reporter has caught, and we refer our readers to them.

The subject of reform in the anatomical nomenclature of the nervous system is a most interesting one. The crying need of reform is manifest. A

prominent psychoneurologist quoted by Professor Wilder thinks that one-half the time at present required for the study of the anatomy of the nervous system would be saved to the student if the reforms suggested could be carried into effect. Now is pre-eminently the time to introduce them, since of late years the great advance in our knowledge of neural-pathology and anatomy has made modifications doubly necessary. What has been discovered up to the present time, however, is but a mite compared to what lies within our reach in the near future in the comparatively unexplored fields of anatomical psychology and neurology.

It is unfortunate that the work so well begun by the committee of the Anatomical Association has been hindered by the overcautious, the too conservative, the too Germanic, and the let-well-enough-alone people, who fear the results of reform, and think Americans not in a position to think for themselves in the matter or to select for themselves the terms in English best suited for teaching purposes. In Oliver Wendel Holmes' words, it is difficult to teach an ancient canine new devices or an old professor new tricks. Perhaps, as Harvey said, "It is not to be expected that any one over forty should accept a new idea," and we must not look for reform in our generation. The need is so great, however, and becoming so much greater as the number of students increases that we heartily welcome renewed agitation of the subject. It is only by long-continued agitation that ideas as well as material particles that have no natural affinity can be gotten into contact so that when the moment of definite interaction comes they shall be in a position to accomplish the reactions expected of them. Let us hope that unlike inert natural elements, some extraneous force will not be required to start the process that will finally lead to union in the matter, but that the intellectum agens of the professorial body will prove to be the only factor needed to overcome the present inertia of a too halting conservatism.

THE PHONOGRAPH AND THE DIDACTIC LECTURE.

DR. HOLMES' suggestion made recently at the meeting of the Association of American Anatomists merits perhaps some consideration from professors of other branches of medicine than anatomy. The genial doctor suggests a phonograph loaded with what is best as to matter, and suave and taking as to manner, instead of the trite and commonplace didactic lecture, whose main purpose would seem only too often to be, to provide an hour of soothing rest for the overworked medical student. The wonderful influence claimed for the vox humana would not be entirely lost by the substitution, and the professor's precious time might be devoted to the more profitable labor (for science at least) of research and investigation.

One distinct advantage that we foresee would surely accrue from the use of the phonograph is that the next generation of medical men would probably be trained to something like uniformity in the pronunciation of medical terms. It is true the phonograph might require careful watching in this respect or, like a friend's typewriter (the machine) which he discarded because it spelled badly, this new mechanical labor-saving device might acquire bad habits. It would at least be consistent in its errors we feel sure and not accent the penult of a word at the beginning of a lecture and hammer out the accent on the antepenultimate at the end of it. But this is only a minor advantage compared to the fact that we could, with the advent of phonograph days, be sure of having an ideal set of didactic lectures as regards both matter and style. They could be made to equal the text-book, be kept thoroughly up to date, and small replicas of them might be furnished each student so that whenever he wished he could have a repetition of a specially exhaustive or peculiarly important lecture.

The discussion of Dr. Holmes' paper at the session of the Anatomical Association shows that at least professors of anatomy consider that the didactic lecture in the medical school has practically outlived its usefulness. It has still place in the curriculum, but instead of being of first importance the advance in scientific medicine and above all in the science of pedagogics have relegated it to a very secondary position. As a supposed conveyer of information, as a useful means of teaching anatomy, as the important feature of an anatomical course, the didactic lecture no longer has a place. There is a function for the lecture but not as a lecture. As Professor Gerrish said it is still of the greatest usefulness in blocking out work for demonstration. As an independent

entity it is bad, yes worse than bad, since it represents failure to advance in methods of teaching. Advance is patent all around us and medical schools ought to be among the first not the last to avail themselves of what is good in modern pedagogics.

We quit the subject for the moment regretfully, so much remains to be said, but we shall have something to say in this regard again next week in touching upon the discussion of "Advances in Methods of Teaching Science," which constituted the program at the recent joint meeting of the affiliated societies that make up the Association of American Naturalists.

TIGHT-LACING AND PERIODIC HEMATURIA.

PROFESSOR ROVSING of Copenhagen, very well known in Europe as a genito-urinary specialist and a conservative surgeon of acute observation, reports in the *British Medical Journal*, November 19, 1898, a case of hematuria occurring at intervals and finally so serious in character as to necessitate operation. It was found that the bleeding was due to the traumatic effect of extremely tight corsets "the superior pole of the kidney having been pressed between the liver and the ribs." Professor Rovsing concludes his report with the remark, "As I have never seen this alteration of the kidney mentioned among the sequelæ of tight-lacing I will call your attention to this fact as a hitherto neglected and perhaps frequent cause of r nal hemorrhage of apparently mysterious origin."

The case is of additional interest because it occurred in a young woman of typically nervous diathesis, slightly built, frequently changing color, and varying humor, in whose case the temptation to diagnose some form of nervous hematuria would be especially strong. In the intervals between the hemorrhages the urine was perfectly normal. We are tempted to wonder how many of the cases of so-called idiopathic hematuria, hematuria without a cause, renal epistaxis, etc., or of such indefinite origin as "renal hemophilia," or "neurotic hematuria," or "hematuria neuralgia," or "malarial hematuria," with no other manifestations of malaria present, or finally that delightfully satisfying, because charmingly full-mouthed etiologic discovery, "renal angioneurosis" are due to this simple yet hitherto unnoted cause! In this connection attention is called to a pointed question in physics, presented in another column.

THE STUDY OF CONTAGIOUS DISEASES.

WE have waited patiently and spared comment in the hope of a reconsideration of the action of the Philadelphia Board of Health in refusing the request of the United Medical Schools of Philadelphia that opportunities be granted their students to see cases of contagious disease. It now seems, however, that their refusal to permit the wards of the Municipal Hospital (the city hospital for contagious diseases) to be used for the purpose of demonstrating types of contagious diseases to students is, for the time being at least, final. The reason given is the fear of the spread of the contagious disease. This is, we think, under the circumstances, a specious argument. It is the medical profession that has organized the present system of sanitation by which contagious diseases are rendered so innocuous in crowded centers of population and it is safe to infer that they may be trusted to take care that the study of them shall not prove a source of contagion.

This is a matter in which non-medical opinion should not have too great weight, and non-medical men the deciding voice. Philadelphia has, however, to her cost in medical matters at least, allowed non-medical opinion and lay officials to dictate the policy of her charitable institutions as far as regards the use of their patients for teaching purposes. There was a time when Philadelphia was the great medical center of this country. If in recent years her distinction in this matter has been gradually slipping away from her it has not been so much because her great medical schools have degenerated from their pristine vigor or because the profession in Philadelphia does not contain the giants there were in those days, as that the ultra conservatism of certain city officials have hampered medical teaching by refusing to grant it the opportunities so readily accorded elsewhere.

This last decision is of a piece with the rest of the narrow-minded policy the city officials have thought it best to follow. It caps the climax of that policy and stamps it as extremely short sighted.

Other cities have realized the necessity to the student of personal observations in cases of contagious

diseases. The facilities granted for study have, we believe, in no case had any serious result.

How much the medical men of Pennsylvania need this personal observation of contagious diseases is brought out clearly by the fact that there was, and if we mistake not, still is, an epidemic of smallpox in certain towns in the interior of the State, which was allowed to gain the hold that it has because it was at first unrecognized by the local physicians. They cannot be blamed, seeing that their only acquaintance with the disease was through the unsatisfactory medium of a text-book.

ENGLAND'S SCHOOL OF TROPIC DISEASES.

We regret to say that the more the details of the plan of the English Government's new School for the Study of Tropical Diseases unfold themselves the greater the opposition to it becomes. This has now culminated in a memorial addressed to the *Times* by a committee of leading physicians, consisting of such men as Sir Wm. Roberts, Sir Dyce Duckworth, Sir Wm. Gowers, Burney Yeo, and others, protesting against the entire plan in its present form. They base their protest upon the following substantial grounds: First, that the proposed outlay for new buildings involved is $80,000, of which the Government promises *only $17,500*, the cost of maintenance, $15,000 a year, toward which the Colonial Office offers only *$5000 in candidates fees*, leaving $62,500, and $10,000 per annum to be supplied by the benevolent public upon whom *all the great hospitals* already rely for the bulk of their financial support. Second, that the proposed site at the Seamen's Hospital, Albert Docks, is extremely inaccessible, and the neighborhood utterly unsuited for the even temporary residence of students. Thirdly, neither the College of Physicians, nor any of the great medical schools, or recognized leaders in the profession have been consulted in any way. Even the staff of the hospital utilized received their first notification of the scheme through the newspapers by seeing there their own names as proposed teachers in the school.

The profession and the medical schools are anxious to concentrate their cases of tropical diseases at some central hospital and arrange for instruction in them without any of this excessive and needless expense, but they naturally object to being ignored in this high-handed manner. Besides, as Mr. Jonathan Hutchinson forcibly points out in the same issue of the *Times*, the profession has just organized a Polyclinic in a most central situation for the benefit of just such colonial physicians, medical missionaries, and other graduate students as the Government school expects to enroll, and the two institutions would be in direct and injurious competition with each other. As the Polyclinic is composed of representatives of every large hospital in London, and can draw its cases from the wards of all of them, it would certainly seem a pity that it and the School of Tropical Diseases could not be combined in some way instead of directly antagonizing one another.

The spectacle of the richest government and greatest colonizing power in the world calmly proposing to pay only *one-fifth* of the expenses of a school to devise means of making the tropics inhabitable by white men is an exhibition which ought to make even officialdom ashamed of its stinginess and stupidity. Considered even as a death-bed repentance for long years of ostrich-like and persistent ignoring of the inestimable services rendered the State by the medical profession it is absurdly inadequate.

ECHOES AND NEWS.

Dr. Little as Professor at Dublin.—Dr. James Little has been nominated as Regius Professor of the Institutes of Medicine at the University of Dublin, Ireland, to succeed Sir John Banks.

The Economy of a Vegetable Diet.—At the vegetarian restaurants now in operation in London a regular dinner can be had for twelve cents, and for thirty cents three meals a day are furnished. No element of flesh enters into the food, but it is said to be well-cooked, palatable, and well-served.

Examination of Applicants for the Marine Hospital Service.—A board of officers will be convened at the United States Marine Hospital, Chicago, Ill., February 14, 1899, for the purpose of examining candidates for admission to the grade of assistant-surgeon in the United States Marine Hospital Service.

Sick Report from Honolulu.—Mail received at San Francisco on the 3d inst. states that two soldiers recently died from typhoid fever. Seven or eight soldiers of the First New York are still at Hilo, too sick to be removed to Honolulu. About 100 convalescents, mostly of the First New York are in a convalescent camp.

Donation to the Lawrence Scientific School, Harvard.—Mr. Charles Wheeler of Philadelphia has given $5000 to Harvard, in memory of his son, Stuart Wadsworth Wheeler, Class of '98, who served during the campaign in Puerto Rico and died in Boston recently, his health having been undermined during the hardships of the campaign in the tropics. The money is to be invested, it is said, and the interest used as a loan fund in the Lawrence Scientific School.

Dr. Von Esmarck's Suggestion.—Dr. Von Esmarck who, through his wife, is closely connected with the imperial house, has written a paper in which he states his opinion that the Czar's conference should aim, at least, to mitigate the horrors of war. The doctor protests against the use of the dum-dum bullet in civilized warfare, and urges that all small-caliber bullets should be cased entirely, or at least at the point in hard metal. Every soldier should, in his opinion, be instructed in Red-Cross work.

The Micro-organism of Faulty Rum.—In the *Lancet* of December 10, 1898, it is stated that this micro-organism has been found; we are informed that it has hitherto escaped observation because it was supposed that no organism whatever could live in liquid of such alcoholic strength as rum. This discovery may prove a valuable addition to the temperance-advocate's armamentarium. No doubt this micro-organism, when magnified upon the stereopticon screen, will be found a hideous monster.

A French Medical Review Suspends.—It is announced that the *Revue des Sciences Medicales*, a quarterly review of reviews in medical literature very well known in other countries as well as in France is about to suspend publication. The *Revue* was established nearly thirty years ago. For the last few years it has been under the editorial direction of Professor George Hayem, the well-known Professor at the University of Paris and the author of a number of books and articles on clinical medicine.

Liquid Air.—The profitable uses that can be made of liquid air, especially in hospitals, are almost unlimited. A quart of it placed in a ventilator will furnish pure air for a day. Fever patients can be kept in rooms cooled to zero, even in the tropics, which would make the nursing of yellow fever perfectly safe, and at the same time, facilitate the recovery of the patient. It might be used with great advantage as a cauterizing agent in cancer, as its action is perfectly under control, and can be instantly stopped.

Can Be Read Backward or Forward.—"The fundamental propositions of Christian Science are summarized in the four following *self-evident* propositions. Even if read backward, these propositions will be found to agree in statement and proof. 1. God is All. 2. God is Good; Good is Mind. 3. God, Spirit being all, nothing is matter. 4. Life, God, omnipotent Good, deny death, evil, sin, disease. Disease, sin, evil, death, deny Good, omnipotent God, Life." From "Science and Health," the Christian Scientists' *vade mecum*.

A Sanatorium for Americans at Nagasaki.—The authorities at Washington are said to have under consideration a plan for establishing at Nagasaki, Japan, a sanatorium for American civilians and soldiers who have been debilitated by the climate in the Philippines. Nagasaki is not especially well equipped for a health-resort, and its climate and surroundings are not appreciably different from those of Manila or Iloilo. There are mountains in the Philippines on the sides of which the debilitated could breathe comparatively cool and pure air and could live among hygienic surroundings.

Pharmaceutical Possibilities.—The "class yell" of the Juniors in Pharmacy at Purdue University runneth thus:

> Physostigma venenosum! Pilocarpus nodulosum!
> Staphisagria, bergamot!
> Pharmacy, pharmacy,
> Naughty naught!

There is a disregard for Latinity in it that finical and supercilious criticism might designate as typically pharmacal, but it illustrates the vocally *noisome* possibilities that exist in the orotund Latin drug names in a way that has never been brought out before. Not everything under the sun in pharmacy is old.

Noise as an Etiological Factor.—Dr. R. W. Hastings has written a paper on this subject which appears in the *Journal of the American Medical Association* of December 24, 1898. He enumerates a number of noises, to which he would certainly have added in italics, had he experienced it, the noise produced by the closing of doors on the Metropolitan Company's street-cars of this city. The conductor seizes the handles, grins like a torturing demon, and then these doors collide with a noise like the simultaneous and concentrated report of a company's musketry fire; it is absolutely unnecessary and certainly avoidable.

Acetanilid Sold for Phenacetin.—Dr. Henry Schmeltzer, an expert chemist, has analyzed a quantity of packages of so-called phenacetin; these samples were found to be mixtures of acetanilid with flour, starch, sugar, bicarbonate of soda, chalk and citric acid. Acetanilid costs fifty cents a pound, while phenacetin costs eighty-five cents an ounce. According to the New York Board of Health, other drugs largely adulterated are citrate of magnesia, bisulphate of quinin, cream of tartar and acid phosphates. The inference is that in using these drugs one should make sure that he has procured the genuine article.

Fire-proof Buildings for the Insane.—The New York Commission in Lunacy has upon its hands the construction and equipment of a new group of cottages, to be built at Central Islip, Long Island, for the Manhattan State Hospital for the Insane. The buildings must be heated, ventilated, and supplied with water and a plant for electric lighting, and the cost must be kept within the amount of the appropriation fixed by law, namely, $500 per patient. This *per-capita* outlay is too small to admit of the Commission entering into contracts that will provide structures that are proof against fire, and it is stated that New York is the only State in the Union that is now building its structures of wood. In case of a fire there is not a more helpless class of people imagina-

ble than the insane. They either sink down to the floor in despair, refusing to make any effect to save themselves, rush wildly into the flames, or leap from upper-story windows to their death. In view of the horrible loss of life in the burning of the State Hospital for a similar class of patients in Illinois, in which scores of patients lost their lives, it would be an act of criminal folly to erect, out on the open plains of Long Island, far from the protection of an adequate fire-department, a group of buildings, the whole interior of which is to be constructed of inflammable wood, through which a gale of wind would sweep a fire with terrifying rapidity.

A Question in Physics.—The accompanying illustrations clipped from a fashion-plate were pinned to a note and forwarded, with the following comment, to Dr. Howard A. Kelly of Baltimore, by one of his younger patients, with whom he had been doing some missionary work along the lines of health and hygiene: "Do you

FIG. 1. FIG. 2.

Style No. 400. Ladies' Bicycle waist. Style No. 245. For misses 10 to 16 years of age.

suppose the poor fools who wear No. 400 think their waists get naturally smaller after sixteen? It would be unbusiness-like for doctors to complain. It is so hideous that artists might. Where do you suppose her 'superfluous' (?) insides are? In her shoes?" It is a hopeful sign of the times that our women patients begin to think and to ask such questions.

The New York Academy of Medicine.—At a stated meeting of the New York Academy of Medicine, held Thursday evening, January 5, 1899, the newly elected President, Dr. W. H. Thomson, took the Chair. In his retiring address the late President, Dr. E. G. Janeway, reviewed the work of the Academy during his term of office and dwelt at length upon the report of the Library Committee. He alluded to the fact that the library of the Academy, by reason of the generosity of the trustees of the New York Hospital in their gift of the library of that institution, is now next to the largest medical library in the United States, being surpassed only by that at Washington, and strongly urged the members to make every effort toward the completion of the Library Endowment Fund. He expressed the hope that the debt of the Academy might speedily be wiped out by individual subscription and stated his willingness to contribute his share toward that much to be desired end. He touched upon the laboratory connected with the Academy, which he considers of great importance in increasing its influence in the profession and which he thinks can and should be made self-supporting. He strongly urged that efforts in this direction be made when the Library Fund is completed. He also referred to the report of the Committee on Expert Testimony in Court which was appointed to frame a bill leading to reform which the Academy could support. He said he desired to thank the Chairman, Dr. Starr, for his earnest efforts in this direction and attributed the little progress which had been made by the Committee to the fact that there are many obstacles to be encountered, the chief of which is the difficulty in gaining the cooperation of the legal profession and in inducing the judiciary to accept a reasonable bill. He expressed the fear that reform will not come in this century. He referred with regret to the resignation from the Board of Trustees of the Academy of Dr. A. Jacobi whose efforts had done so much to make the organization what it is, and, in closing, expressed the hope that under the leadership of his honored successor the Academy would prosper as it never has before. In his inaugural address Dr. Thomson, after thanking the Fellows for the honor they had conferred upon him, spoke of the purpose for which the Academy was founded, viz., to advance the progress of medicine, and expressed regret that the growth of specialism had necessitated the breaking up of the body into sections. He referred to the time when weekly general meetings were held, at which topics of universal interest were discussed and which were largely attended by the general practitioner, and suggested that the progress of medicine could best be advanced by the discussion at consecutive general meetings of such subjects as syphilis, for example, from the various standpoints of the general practitioner, the dermatologist, and the neurologist. The latter part of the address was devoted to a consideration of immunization, vaccination, serum-therapy, and the etiology of edema. Before the close of the meeting an oil portrait of Dr. Joseph D. Bryant, former president, was presented to the Academy, the presentation address being made by Dr. A. Jacobi.

SPECIAL ARTICLE.

SCIENTIFIC AND EDUCATIONAL REFORMS.

MEDICAL NOTES FROM MEETINGS OF SECTIONS OF THE ASSOCIATION OF AMERICAN NATURALISTS HELD AT VARIOUS EDUCATIONAL INSTITUTIONS IN NEW YORK CITY DURING CHRISTMAS WEEK, 1898.

PROFESSOR BURT WILDER of Cornell University, President of the Association, opened the general session with an address on some misapprehensions as to the simplified nomenclature of neural terms. He spoke at considerable length, more especially of two sources, of misapprehension as to the neural terms that had been suggested by him and recommended for adoption by a

majority of a committee of the American Association of Anatomists appointed for that purpose. There is a false impression abroad that it is his personal influence that swayed the majority of the committee, in spite of the well-known fact that the other members who signed the majority report are independent thinkers, interested teachers, and capable investigators. It is also thought that most of the terms recommended for adoption are new and unusual in English. Nothing could well be more false. Barclay in 1803 had suggested some of them, especially the much-discussed terms of intrinsic toponymy. Owen had prophesied in the '40s that substantive anatomical terms because of their helpfulness to teacher and pupil would surely come in. Pye Smith in 1877 spoke strongly in favor of simplicity and took almost the very ground which the committee of the Anatomical Association now recommends for adoption.

Oliver Wendell Holmes in a personal letter to Professor Wilder some years ago said he did not hope to see the reforms in his day. "It was hard to teach ancient canines new devices or old professors new tricks." He hoped, however, that the agitation would be continued until even "that capricious dame Science would consent to try on the new-fashioned garment."

Professor Wilder acknowledged that the continuance of the agitation is not pleasant, but the number of students in this department of science will in the future be so great that the present discussions and the unpleasantness they involve make it well worth the effort to simplify the subject for them. Spitzka has stated it as his opinion that half the labor of the anatomical student of nervous tissues will be saved by the introduction of the new terms.

As to the opposition to the contemplated reform, a good deal of it is due to "certain habits of uncritical imitation and unreasoning opposition to what appears new, because unfamiliar, which man shares with the other mammals." Wordsworth had summed it up in the well-known lines,

> "I do not like you Doctor Fell,
> The reason why I cannot tell
> I do not like you Doctor Fell."

A certain amount of opposition comes from the fact that the German Anatomical Society, utterly disregarding what has been done in England and America in the line of simplification, has adopted another nomenclature. The Germans claim to desire unity in the matter. Some married men say that man and woman are one, but the man is *the* one. It would seem that the German desire for oneness premised the proviso that the German should be *the* one. In any case it is to be remembered, with the present racial impulses at work, that what is English will eventually prevail. A certain condescension in foreigners had been noted long ago and we must simply go about our business for ourselves, assured that in this as in everything else all will come out right in the end.

The passage on the quasi-military despotism of General Usage and the similitude, comparing reform to the incoming tide, are so forceful that we reproduce them verbatim. The latter Professor Wilder quoted from an unknown source, as did Kipling the couplets that appeared at the head of certain of his short stories. We have been tempted to think that both writers could say more of the origin of their quotations if they wished:

"It has been urged that members of this association should defer to what is called General Usage. Of all so-called leaders the most incapable, blundering, and dangerous is *General* Usage. He stands for thoughtless imitation, the residuum of the ape in humanity, for senseless and indecorous fashions, the caprices of the demi-monde, for superstition and hysteria, the attributes of the mob, for slang, the language of the street hoodlum, and of his deliberate imitator the college sport, and finally in science for the larger part of the nomenclature of the brain.

"As scholarly anatomists it is at once our prerogative and our duty to scrutinize and reflect and to deal with the language of our science in the same spirit and with the same discrimination that we practise in regard to the facts and generalizations thereof.

"When the first little wave of the rising tide comes creeping up the shore the sun derides her, and the dry sand drinks her, and her frightened sisters pull her backward, and yet again she escapes, and still her expostulating sisters cling to her skirts, and the rabble of waves behind cry out against her boldness, and all the depths of the ocean seem to rise to drag her down, and now the second rank of waves who would have died of shame at being the first have unwillingly passed the earlier mark of the little wave that led them, and now you may float on in your ship for lo, the tide is full.

"So it is with all systems of reform. Though the pioneers be derided the great needs of humanity behind push on to triumphant acquisition of the new order of things."

DR. HOLMES, Demonstrator of Anatomy at the University of Pennsylvania, then read a paper on the defects in our present methods of teaching anatomy. He considers that the first defect to be remedied is the matter of preparation for the anatomical course before beginning the study of medicine; this preparation to consist not alone in a better general education but in a certain amount of special scientific training which every studen who intends taking up the study of medicine should have the opportunity to acquire during his last year or two as an undergraduate. The present method of teaching anatomy is especially defective because it gives too important a place in the curriculum to the didactic lecture. If there is any branch of medical work in which the merely didactic lecture is out of place it is in the study of anatomy. There are some who still insist on the influence upon the student's mind of the personality of the lecturer, and the magic of his voice to impress great principles and give a living grasp of the important points among the infinite details of the vast subject. If the human voice is so wonderful then Dr. Holmes suggests that a committee of the Anatomical Association, composed of our best teachers of anatomy be appointed to draft a set of lectures which the man possessed of the most finished style shall put into vigorous pellucid English, and the most eloquent, whose voice is warranted to keep the most dys-

peptic of students awake even after dinner, shall talk into a series of phonographs. Replicas of these phonograms shall be furnished to all the medical colleges and lo, we shall have an ideal didactic course in anatomy.

The practical study of applied anatomy is too important a matter to allow its advance to be hindered any longer by old time methods. Practically, all surgical mistakes, at least in the early years of practice, depend on the neglect to bring the study of applied anatomy up to the pedagogic standard that already exists for other sciences.

A. C. LANGMUIR read at a session of the American Chemical Society a paper of special interest on the determination of arsenic in glycerin. Mr. Langmuir considers that traces at least of arsenic are to be found in all glycerin. He attributes its constant presence not always to the employment of arsenic in its manufacture with consequent contamination of the product, but thinks that arsenic is to be found naturally in the fat from which glycerin is obtained. Animals consume a certain amount of arsenic, and this is deposited in the fat of their tissues to appear later on in products obtained therefrom. Most of the present methods of obtaining glycerin demand the use of arsenic but Mr. Langmuir has succeeded in demonstrating the presence of the poison even when none had been used by the manufacturers of the glycerin.

The paper led to a good deal of discussion, much of which showed a strong tendency to oppose the view that arsenic was deposited in animal fat, and that the contamination of the glycerin occurred in that way. Some years ago when for a time glycerin was lauded as a specific for most constitutional troubles that involved loss of weight, the results obtained from its use in large quantities were so contradictory in different parts of the medical world that the present discussion will be welcome should it help to clear up certain doubts as to the uniformity of its composition as made by different methods. As glycerin still occupies a not unimportant place in the Pharmacopœia the subject is of no little present interest.

PROFESSOR GERRISH of Portland, Me., spoke on the order of topics for the course in anatomy; the use of charts and blackboards and the relative value of didatic methods. The blackboard and sketching has been in Professor Gerrish's experience of much more value than the most elaborate charts. There is a living interest in seeing the parts sketched even imperfectly, that cannot be aroused by any mere chart, however well executed.

It is to be remembered, moreover, that a system of recitation is an important function of all proper teaching of anatomy. It impresses important points and leads to the correction of erroneous impressions. Examinations in anatomy should not consist merely of question and answer, the text-book supplying the information and a good memory being the only requisite to secure good marks, but the student should be placed before a dissected subject and asked to demonstrate instead of explaining.

PROFESSOR HUNTINGTON of the College of Physicians and Surgeons of New York City spoke on practical anatomy and how to teach it and on the order of topics. He considers that the teaching of practical anatomy requires the coordination of oral teaching with practical work. This demands the division of the class into sections so that each student shall get personal instruction. A competent staff of demonstrators must be provided for the dissecting-room, so that the anatomical material and the magnificent opportunities it affords for training in practical anatomy shall not be allowed to go to waste as has been the case too often in the past. As to the order of topics he considers that the viscera should be taught first and that there should be a coordination of the physiology and anatomy courses so as to secure the most effective results.

At the afternoon session Professor Huntington spoke on the morphology and phylogeny of the vertebrate ileocolic junction. He traced the cecum or its equivalent through all its evolutional phases, illustrating his remarks by stereoscopic slides of specimens from the various mammals. The hour's talk was an excellent example of the value of comparative anatomy in teaching human anatomy and furnished a sample of the illustrated didactic lecture, that medical men generally would not willingly see barred from the curriculum.

DR. MARTIN read a paper on the examination of the cecum and appendix in one hundred subjects, which will evidently lead to the modification of some at present accepted views as to the blood-supply and peritoneal attachments of the appendix.

PROFESSOR HUNTINGTON in the discussion of the paper called special attention to the fact that while Zuckerkandl had found obliteration of the lumen of the appendix in 50–60 per cent. of the cases examined by him, Martin had found it in a very small number of cases and those found had occurred only in subjects more than sixty years of age.

PROFESSOR DWIGHT of Harvard asked if any vascular connection had been found between the ovary and appendix in female subjects. Dr. Martin replied there had not. Professor Dwight said that personally he had always considered any vascular connection reported to have been found between these structures accidental, the result of pathological adhesions. The organs were developed from entirely different embryological elements and any vascular connection must be pathological and acquired.

DR. HAYNES of New York City gave an explanation of a new method of cutting gross sections of the cadaver with demonstrations of the technic. He is able after an injection of a four-per-cent. solution of formalin once and a two-per-cent. solution twice during the course of a week, to make complete sections in any direction of children's cadavers, so as to make specimens for the demonstration of visceral relations that are almost, if not quite, equal to frozen sections for teaching purposes, yet are made practically with but a tithe of the labor and care required by the old method.

A New York Hospital Changes Its Name.—It is officially announced that the New York Cancer Hospital will hereafter be known as the General Memorial Hospital.

CORRESPONDENCE.

OUR PHILADELPHIA LETTER.

[From Our Special Correspondent.]

GOVERNOR HASTINGS' ANNUAL MESSAGE — AN AGE LIMIT FOR TEACHERS—THE SAMARITAN HOSPITAL ENTERTAINMENT—ANNUAL ELECTION OF THE COLLEGE OF PHYSICIANS—SOME RECENT HOSPITAL BEQUESTS — PERSONAL NOTES—OBITUARY — HEALTH STATISTICS.

PHILADELPHIA, January 10, 1899.

GOVERNOR HASTINGS' message, which was sent to the Legislature last Tuesday, contains some excellent suggestions. He calls attention, among other things, to the wretched overcrowding of the State hospitals and advocates the county's care of its own indigent insane, a plan which has been in operation since May, 1897. He also urges the need of separate hospital care for epileptics and favors the adoption of a plan similar to that in existence in New York and some other States. The Governor states that there is one epileptic in every thousand persons in Pennsylvania.

An insane hospital, erected within the guard-walls of the State's penitentiaries, is recommended for the care of insane convicts of whom there are about 200 in the State. Attention is again drawn to the filthy condition of many streams of the State which are alike used for drinking purposes and for sewers. The message is an excellent exposition on sanitary matters relating to the State and though the Legislature will probably pay the usual scant attention to additional State necessities, water in time wears away rock, repeated drilling in time may pierce legislative skulls.

It is to be regretted that a system such as prevails in German universities, of retiring teachers after a certain age limit, does not obtain in this country. This is forcibly brought to mind by the fact that no less than two of our local medical schools are seriously handicapped by having upon their teaching force men, who, while brilliant and able in their day, are far from being able to satisfactorily fill the positions they still continue to occupy. An institution burdened in this way is helpless for the elections are made for life, and not realizing their decay, these veterans still remain monuments of a past glory and obstacles to further advancement. But one way, and that a clumsy one, remains to shelve a worn-out teacher, namely, by making his position emeritus. That this is frequently combatted vigorously is shown by the failure of a recent attempt to do this, the prospective recipient declining the position with tears of gratitude for the proposed honor! Fools step in where angels fear to tread and constantly dwindling clinics may be less delicate, but equally effective as hints from friends and fellow-teachers.

The Samaritan Hospital has been placed in an unenviable position by reason of a collector who was employed to manage an entertainment to be given by the hospital. At a meeting of the Board of Trustees, held on Saturday, it was determined to refund all money collected as the collector was taking fifty per cent. of all donations made, while the trustees' understanding was that fifty per cent. of the gross receipts of the entertainment should be received by him to defray the cost of renting the Academy of Music and other expenses incident to the occasion. About $1000 was donated upon which the superintendent allowed the collector fifty per cent. under the impression that the money came from an advance sale of tickets. The proposed entertainment has been abandoned.

January 2d the annual election of the officers of the College of Physicians took place, resulting as follows: President, Dr. John Ashhurst, Jr. (reelected); vice-president, Dr. William W. Keen (reelected); treasurer, Dr. Richard H. Harte; secretary, Dr. Thomas Neilson; honorary librarian, Dr. Frederick P. Henry; librarian, Charles Fischer. Two new councillors were elected, Drs. Henry R. Wharton and Morris J. Lewis, the others remaining unchanged with the exception of Drs. Packard and Dulles, whose terms had expired. The censors are Drs. Alfred Stillé, William F. Norris, Arthur V. Meigs, and Richard A. Cleeman. Library, hall, and other committees were appointed with but few changes in the present members.

The Training School for Feeble-minded Children at Elwyn has been left $2500 by the will of the late Francis M. Brooke. The income of the money is to be used for the entertainment of the children.

Judge Mayer Sulzberger and the co-executors of Simon Muhr's estate have just made a third distribution of the money left by him to charity. The total amount is $42,000 which, with the $126,000 already divided, makes a total of $168,000, with the likelihood that a fourth distribution will be made in the near future. Among the institutions which received this last instalment are: The Jewish Hospital Association of Philadelphia, $7000; the Pennsylvania Hospital, $1400; the Jefferson Medical College Hospital, $1400; the Hahnemann Homeopathic Hospital, $700: the Philadelphia Polyclinic Hospital, $700; the Philadelphia Lying-in Charity, $560: the Women's Hospital of Philadelphia, $560; the Children's Hospital of Philadelphia, $560. In addition to these sums every home for old people and children, every sanitarium association, day nursery, etc., received sums varying from $260 to $1500.

Another generous gift of last week was that of Peter A. Schemm, who, with his mother, gave $5000 for the maintenance of a free bed in the German Hospital in memory of the late Peter Schemm.

By the will of L. Taylor Dickson, who died recently, his entire estate amounting to about $100,000 is to revert to the Pennsylvania Hospital upon the death of the five beneficiaries to whom it is left in trust during their lives.

Dr. Florence Watson, Pathologist to the State Hospital for the Insane at Norristown, has resigned on account of ill health and Dr. Edith Barker of the Delaware Insane Hospital will, in all probability, be elected to fill the position thus made vacant.

Dr. B. Franklin Stahl has been appointed Lecturer on Dietetics at the University of Pennsylvania and Dr. Thomas S. Kirkbride, Jr., has been appointed Director of the Laboratories of the Philadelphia Polyclinic. The

laboratories are to be thoroughly reorganized and an effort will be made to bring this class of work at the Polyclinic into more prominence.

Drs. Emil Hertel, D. I. McCalley, Thomas D. Cook, and George Steinicken have been appointed vaccine physicians by the City Council of Wilmington. The Berks County Prison Inspectors have elected Dr. S. T. Schmell as physician to that institution.

William Potter, ex-Minister to Italy and President of the Board of Trustees of Jefferson Medical College, is said to be President McKinley's selection for the post of Ambassador to Russia.

Dr. Charles C. Lange, a graduate of the University of Pennsylvania, died suddenly at his home in Pittsburg, on January 3d, aged fifty-six. Dr. Louis A. Livingood, a graduate of Jefferson Medical College, died at Womelsdorf, January 6th, aged 68.

The total number of deaths occurring in Philadelphia during the week ending January 7th, as reported at the health office, was 713, of which number 185 occurred in children under five years of age. The total number of new cases of contagious diseases was 307, reported as follows: Diphtheria, 95 cases with 23 deaths; scarlet fever, 32 cases with 5 deaths; typhoid fever, 180 cases with 24 deaths.

MEDICAL MATTERS IN CHICAGO.

[From Our Special Correspondent.]

SYMPTOMS AND DIAGNOSIS OF MOVABLE KIDNEY—SURGICAL TREATMENT OF MOVABLE KIDNEY—EDITORSHIP OF THE "JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION"—SUPERINTENDENT OF ELGIN ASYLUM—ANNUAL REPORT OF COUNTY PHYSICIAN—IMPROVEMENTS IN COOK COUNTY HOSPITAL—HEALTH STATISTICS OF CHICAGO DURING THE PAST YEAR—NEBULIZATION IN THE TREATMENT OF PULMONARY TUBERCULOSIS.

CHICAGO, January 9, 1899.

AT the December, 1898, meeting of the Chicago Gynecological Society, Dr. H. B. Stehman dwelt upon the symptoms and diagnosis of movable kidney. In considering the subject of differentiation, he said there are several anatomic and pathologic facts, which, if kept in mind, will help one materially: (1) The post-peritoneal position of the kidney as compared with the liver, spleen, gall-bladder, and various cysts and growths within the abdominal cavity, which can be easily demonstrated by combining percussion with inflation of the bowel. (2) The reniform shape of the kidney in comparison with the characteristic shape and feel of the spleen, liver, gall bladder, etc. (3) The immobility of the displaced kidney during inspiration and expiration, as compared with the descent and ascent of the spleen and liver and growths connected with them during respiration. (4) The pulsation of the renal artery, which, if felt at all, will always be recognized as part of the pedicle, for it must be remembered that the range of motion of the kidney is determined by the vessels, nerves, and ureter. (5) The ease with which the organ can frequently be moved from place to place and restored to its normal position in comparison with organs or growths whose positions are fixed. (6) Tenderness on pressure and the sickening sensation which is produced by compressing the organ between the two hands.

In ovarian cyst the development of the tumor and recognition of its origin may be determined by vaginal examination. In echinococcus cyst, that is, pedunculated, differentiation may be quite difficult, unless a hydatid fremitus can be felt; otherwise recourse can be had to aspiration. In fecal impaction, copious enemata with the liberal exhibition of cathartics will rarely fail to clear up the diagnosis; and if the coprostatic mass envelops the kidney, by dislodging the same the bean-like form of the organ will stand out in plain relief. It should constantly be borne in mind that excluding the symptom of pain, the movable kidney has little in common with ordinary inflammation, and thus in the presence of the characteristic symptoms of appendicitis or the edema, redness, tenderness upon pressure, with probable fluctuation of a perinephritic abscess, the physician should hardly fall into the error of confounding either of the two with displacement of the kidney.

At the same meeting, Dr. L. L. McArthur read a paper on the surgical treatment of movable kidney. He believes he has made a step in advance toward the ideal by a procedure with which all perforating sutures of the kidney parenchyma may be abandoned while supplying a fair substitute for the folds of peritoneum and transversalis fascia which normally hold the kidney in place. He has satisfactorily accomplished it in this manner: (1) A curved transverse incision below the last rib is made anteriorly through all the structures down to the peritoneum. (2) The peritoneum is then by blunt dissection loosened from lateral parietes sufficiently to permit boldly enlarging the posterior angle of the wound without fear of injury to important structures quite back to the quadratus. (3) The fatty capsule of the kidney is loosened by blunt dissection. (4) The anterior layer of the lumbar fascia is then loosened from the tissues on which it lies to such an extent as will admit the kidney in the pocket thus made. The lower flap of the wound now has a compartment for the lower half of the kidney. (5) Prior to inserting the kidney in the new compartment, two or three stitches are inserted into the cut edges of the transversalis aponeurosis, which serve to pucker the pocket containing the kidney. (6) The kidney having been dislocated first upward, its lower end is slid into the pocket. (7) Closure now of the stitches in the aponeurosis of the transversalis fixes the lower half of the kidney external to one of the layers of the abdominal parietes, supporting the same by so broad a surface that no injury to the kidney can result, and no displacement can occur. Dr. McArthur has found the pocket for the lower half of the kidney sufficient, and suggests its use in the movable cases, where a very complete arrest of its wanderings can be secured; two or three stitches can be made to hold the kidney until adhesions form. By this arrangement, too, the movements of the other abdominal organs cannot dislodge the kidney in question, it being external to one of the layers of the abdominal wall,

pressure from above tending to drive it deeper into the pocket thus formed.

A call was issued for a meeting of the Board of Trustees of the American Medical Association shortly after the death of Dr. John B. Hamilton, with a view to selecting an editor for the journal. Accordingly, the board held a conference January 3d. Numerous candidates for the editorship are springing up all over the country, Chicago having 5, Philadelphia 3, Cincinnati 1, New York 1, and St. Louis 1. It is said that the members of the board have been literally besieged with letters and telegrams extolling the virtues and abilities of certain candidates and pointing out the weaknesses of others. One or two out-of-town members of the board, fearing they would be pestered with visits from wire-pullers, stopped at a certain hotel in this city without registering. After discussing freely the qualifications of the various candidates, the board adjourned without selecting an editor. At its February meeting it will reconsider the matter. Dr. Truman W. Miller, a Chicago trustee, is at present acting as supervising editor of the journal at the request of the board.

No one has received as yet the appointment of Professor of the Principles of Surgery and of Clinical Surgery in Rush Medical College, a vacancy caused by the death of Dr. Hamilton. It is thought that either Dr. D. W. Graham or Dr. Arthur D. Bevan will secure the position. The latter is now Professor of Anatomy in Rush Medical College. Dr. Graham is at present conducting Dr. Hamilton's surgical clinic.

Dr. F. S. Whitman of Belvidere, Illinois, has been appointed to succeed the late Dr. Hamilton as Superintendent of the Elgin Asylum for the Insane.

Dr. E. C. Fortner, the County Physician, in his annual report points out the need in Chicago of a hospital for the treatment of alcoholic cases. At the Detention Hospital, where these cases are now treated, during the past year 501 women and 772 men, alleged to be insane, were tried. The court discharged 246, sent 600 to Dunning, 130 to Elgin, and 260 to the Kankakee Insane Asylums, and 11 died.

During the past year the Warden of the Cook County Hospital, Mr. Graham, made a number of improvements. The new receiving ward was opened and put in service. It is fitted with every modern convenience and equipped with the best apparatus. The important feature among the improvements is the elaborate sterilizing plant with which the new operating-rooms have been equipped. The total appropriation for the hospital was $245,248. Of this $140,000 was expended for maintenance and supplies, and $105,248 for salaries. The number of patients admitted during the year 1898 was 18,283. The average cost per patient was 72.7 cents a day. The total number of employes was 225.

The daily average number of patients at the Dunning Asylum for the year 1898, was 1357; at the Infirmary, 1312, making a total daily population of 2669. The cost of maintenance of the patients, without counting in the salaries of employes, is 18 cents a day; adding the cost of salaries the daily average expense is 28⅝ cents per capita. Out of a total appropriation of $337,161 for the year, $276,420 was expended, making a saving of $60,740.

The City of Chicago has maintained its remarkable record for healthiness during the year. Notwithstanding the ominous appearance of two epidemic diseases much dreaded by sanitarians and health officers, namely, influenza and cerebrospinal meningitis, both during the first five months, the Commissioner of Health reports that the total deaths during 1898 were less than 1000 more than those of the previous year, when the mortality-rate was the lowest ever recorded for any city of more than half a million population. During the year the Municipal Laboratory, the work of which has come to be generally recognized as the backbone of effective sanitary administration, has been moved into more commodious quarters, its equipment largely increased, and its facilities improved in every respect. With this change and improvement has come a more than corresponding increase in the volume and variety of the work performed. Demands from the public for its skilled examinations of food-products and for its new and unobjectionable methods of disinfection, and especially from physicians for assistance in the recognition and control of the contagious and infectious diseases, are steadily increasing. All this has been made possible by the wisdom and foresight of the City Council for the maintenance and extension of the work.

Among the improvements effected during the year in the different branches of the Health Department may be noted the supervision of the cemeteries and undertakers as to burials, and of certificates of death as to causes, whereby it is made more certain, on the one hand, that no unauthorized burial or removal of a dead body may take place, and, on the other hand, that the true cause of death shall be reported in all cases. This rigid supervision has added greatly to the value of the vital statistics of the department.

The results of other improvements steadily pushed during the year are to be seen in the reduction in the deaths from contagious diseases generally, due to supervision of contagious disease funerals and other measures enforced to prevent the spread of such diseases; in the lowest actual number of deaths from diphtheria in any year since 1884, and the lowest death-rate of this disease among the patients treated by the department physicians, ever recorded in any community; in the lowest summer death-rate on record among infants and young children; in the more active cooperation of members of the medical profession with the department, and in the increasing confidence in the efforts of the department, encouraged and supported by the civic administration in all its branches, to safeguard effectively the interests of life and health in the community.

At a meeting of the Chicago Medical Society, held January 4, 1899, Dr. Homer M. Thomas read a paper on "The Mechanism of Nebulization in the Treatment of Pulmonary Tuberculosis."

He referred to the general interest which is taken in the subject of nebulization at the present time, and particularly its application to the treatment of pulmonary

troubles. Nebulization is one of the oldest propositions in treatment known to medicine. It traces back to the time of Hippocrates, who was the first to devise an apparatus for the purpose of inhalation. The evolution of nebulization has been greatly enhanced by the production of an oily menstruum, particularly the oils of the coal-tar products, which, as vehicles, may be used in combination with the stronger basic oils for inhalation. A difficulty which has appeared to lie in the direction of this treatment has been in the imperfect construction, and hence inefficient action, of various nebulizing instruments. Dr. Thomas described in detail a nebulizer which he has devised for his own use, and which has proved eminently satisfactory.

The latest addition to facilities in Cook County for treating disease has been the erection of a consumptive hospital at Dunning, which is devoted exclusively to the care and treatment of tubercular patients. One of the measures used in treatment is nebulization of the essential oils, as oil of cinnamon, oil of wintergreen, oil of pine needles, Merck's oil of cloves, oil of eucalyptol, beechwood creosote, and thymol. The compressed-air mechanism in the new hospital is probably the most complete in this part of the country. Extreme care has been used in providing absolutely pure air for the application of this treatment there. The air first enters the building from the highest ridge of the roof; it is filtered through three screens of increasing fineness; it passes into an antiseptic chamber, and then into a water bath, the water of which is filtered and chemically pure, and the water drops down through the compressed air as it passes through for the purpose of separating from it any possible impurities that may have escaped the former methods of purification and antisepsis. It is then carried from the water bath into a large tank of 150 gallons capacity, is stored at a pressure of 45 to 50 pounds to the square inch, it passes through another antiseptic chamber, and is then ready to be piped throughout the building. The capacity of the hospital is about 380 patients and with the present piping arrangement it will be possible to nebulize at the bedside probably 50 or 60 patients' special nebulæ as may seem needed for each case. In addition, there are rooms large enough to accommodate 10 or 15 patients at a time in which the air is supersaturated with antiseptic nebulæ. In these rooms the patients gather for from fifteen minutes to thirty or forty, and breathe this highly charged antiseptic air. By this means it is hoped, with the very efficient mechanical appliances there in operation, to greatly assist in the amelioration and possible extinction of pulmonary tuberculosis.

In the discussion on Dr. Thomas' paper, Dr. George W. Johnson stated that from June 1, 1897, to October 1, 1897, he persistently treated 260 tuberculous patients by the inhalation of vaporized oils, such as beechwood creosote, oil of cloves, and eucalyptol, using albolene as a vehicle. These oils were vaporized by compressed air (hydrostatic) of from 15 to 25 pounds pressure per square inch. The vapors were respired from a mask fitting lightly over the face and for a period of fifteen minutes each morning and evening. While inhaling the vapor the patients were required to breathe as deeply as possible and about the normal number of respirations per minute. From these 260 patients a careful clinical record of 40 cases was kept on such points as quantity and character of sputa, microscopic examination, temperature, pulse, respiration, cough, night-sweats, physical examination, and body weight. A study of this clinical record for four months showed good results. In each case the weekly examination of the sputa showed a marked diminution in the number of pus-cocci, but no appreciable diminution in the number of tubercle bacilli. The sputum was diminished in quantity, the cough greatly allayed, the body weight increased, with marked relief from night-sweats and dyspnea. The patients took kindly to the treatment. From October 1, 1897, to October 1, 1898, he had admitted to his tubercular ward 333 patients. Of this number 236 were given the vapor treatment persistently and 118 were so much improved that they left the institution to seek employment. He is of the opinion that inhalation therapy has a bright future.

OUR LONDON LETTER.

[From Our Special Correspondent.]

CHARACTERISTIC TRAITS OF THE LATE SIR WILLIAM JENNER—A SET-BACK FOR THE CHRISTIAN SCIENTISTS—A POWERFUL ALLY FOR THE VEGETARIANS—RADICAL TREATMENT OF HERNIA IN THE BRITISH ARMY.

LONDON, December 31, 1898.

THE death of Sir William Jenner is the principal subject of interest among the profession here at present. It was in no sense a surprise as he withdrew from all practice on account of failing health nearly nine years ago, at the age of seventy-four. In the eye of the public his principal distinction lay in the length and importance of his services as Court Physician for the term of no less than 32 years. He attended the Prince Consort in his last illness and the Prince of Wales in what very nearly proved to be his, in 1872. For days the royal patient hovered between life and death and so constant and assiduous were the attentions of his physicians, that he was popularly believed to have been saved only by one of them breathing into his mouth for several hours! Curiously enough the disease in both father and son was typhoid fever. Not only had Jenner the absolute confidence and warm regard of his illustrious patients (Her Majesty was pleased to allude to him in the last Court Circular as "not merely a most skilful physician, but a true and devoted friend," considered here a wonderful piece of condescension to a mere medical man) but of the profession as well. In fact, the best thing about his long tenancy at this distinguished position was that it was not due in any way to self-seeking, ambitious scheming or subserviency of any sort. Upon one occasion the Queen foolishly wrote to him expressing her deep regret that one with whom she was so intimately connected should have publicly upheld and endorsed the cruel practice of vivisection. Jenner promptly replied that he was sorry to pain Her Majesty by incurring her disapproval, but that he

felt under obligation to follow his own best judgment and conscience in such matters and if she felt in any way dissatisfied, his resignation was before her for action at any time. The matter was dropped at once and no further intimations of the sort were attempted again.

To the profession Jenner was best known by his splendid work as a teacher in the Chair of Principles and Practice of Medicine in University College, which influenced such men as Lord Lister, Sir Russell Reynolds, Sir William Roberts and Michael Foster, all of whom were among his pupils. His memory will live chiefly in his classic monograph differentiating typhus from typhoid. He was very proud of his descent from the same family as the great discoverer of vaccination.

Another decision has just been rendered which is of much importance in its bearing upon both Faith-Healing and Christian Science. It was given by no less an authority than the Lord Chief-Justice himself upon an appeal from the decision of a lower court. The plaintiff, a member of the sect known as "Peculiar People," had permitted his five-months' old child to die of bronchitis without summoning medical aid. He had followed scriptural injunction and had the child anointed with oil and prayed over by the elders of his church, also hiring a nurse to attend it. His counsel claimed that having done everything which he conscientiously believed to be necessary, he could not be held guilty of neglect. The Chief-Justice gave judgment at once upon the agreed statement of fact without calling for argument from the prosecution. He held that no matter what the father might have done or how devoted in other respects he might be shown, if he had deliberately failed to do the one thing which the unanimous experience of the race had shown to be of greatest value and importance in such circumstances, he was guilty of wilful and criminal neglect. As for the plea of religious or conscientious scruples (and here the decision is of special interest from the fact that Lord Russell is a devout Catholic), that, however valid in morals or theology, could not be entertained for a moment in a court of law, as otherwise the door would be opened for the gravest and most serious abuses. Nothing but absolute physical inability could excuse any man in the eye of the law for failure to use every common and well-attested means for the protection of the lives of those under his care.

The finding of the lower court was therefore sustained and the prisoner was taken back and next day sentenced to four-months' hard labor. It is to be hoped that this authoritative decision will govern the action of all judges before whom such cases are brought in future instead of the flabby invertebrate policy which has hitherto been pursued.

Dr. Alexander Haig's new book on "Diet and Food" ought to bring as much consolation to the vegetarian crusaders as it brings dismay to his friends. Not content with a moderate application of his really most ingenious and interesting theories and experiments upon the uric-acid factor in disease, he has overleaped all bounds of discretion and now attributes almost every evil that the flesh is heir to, moral as well as physical, to this baneful excretion. Suicide is more common in men than in women, because the former eat more meat! The gentler sex come in for their share of disaster in that chlorosis is due to the same dietetic vice. He even goes so far as to declare that "In diet lies the key to nine-tenths of all the social and political problems of our time." Truly uric acid is the root of all evil. Holding rigidly to his childishly inadequate and unchemical theory that the only source of uric acid in excess, in the body, is that actually taken in in the food, he naturally taboos every food-substance containing it in any considerable quantity and falls at once into the vegetarian camp.

Even here, however, he cannot rest easy, but lays about him right and left because the vegetarian although avoiding the chief source of ready-made uric acid, still indulges in eggs which are bursting with it, and coffee and tea which consist almost exclusively of it in the easily convertible form of caffein.

Like most men who experiment chiefly upon themselves he has become almost hysterical in his extremeness. At this rate we shall soon be as purely and peaceably vegetarian as sheep and about as interesting.

The last Harveian lecture was delivered last week by Dr. William Ewart upon "Medical Education and Medical Practice: Their Pressures and Their Prospects." He paid a high compliment to America for her progressiveness in recognizing the value of clinical laboratories and for the high standard of public opinion in the prompt recognition and early treatment and avoidance of disease. The most serious problem approached by him was that of contract medical practice or clubs which not only guarantee to their members all professional services required for the disgraceful subscription of *eighty-seven cents* per annum but also employ agents to canvass for members and thus attack the poor doctors' remaining private patients. In some districts nearly two-thirds of the population belong to such clubs and practitioners all over the country are finding the situation a most serious one. Bht as yet no adequate remedy seems to have been devised.

The radical operation for hernia has just been recognized by the Army authorities and a circular issued urging all enlisted men with rupture now in the service, which are considered suitable for operation by their regimental surgeon, to repair to certain specified military hospitals where surgical experts have been detailed to perform it. In future no soldier will be invalided permanently for hernia, unless this operation has been tried or is judged inadmissible.

At the last meeting of the Medico-Chirurgical Society an elaborate paper was presented upon "An Improved Method of Treatment of Separation of the Lower Epiphysis of the Femur" by Jonathan Hutchinson, Jr., and H. L. Barnard. The authors had been fortunate enough to have the care of four cases of this rare fracture, in all of which the method gave excellent results. The difficulty in these cases has always been, first, in reducing the fracture and, second, in keeping the fragments in place on any ordinary splint. Out of thirty cases collected only six patients recovered with a useful limb.

The new method solves both difficulties by completely flexing the joint, when the fragments slip readily into place, and then retaining it so by bandaging the leg to the thigh for ten days or two weeks. By this time fair union will have occurred and the limb can be placed upon a Macintyre splint and gradually straightened with the screw-threads. This curious position is said to be well borne by the patient. Skiagraphs were shown of all the cases treated both before treatment, showing clearly the position of fragments, epiphysis forward, shaft backward, and after the excellent results of the method.

An ingenious representative of the *Lancet* is securing some interesting information upon the abortion question "from the inside" by writing to the advertisers of abortifacients and representing himself as a pregnant woman, and ordering supplies of their remedies. If they advise stronger preparations at higher prices, as they usually do, he again "bites" and purchases, and then analyzes all the stuff sent him. The composition ranges so far all the way from dangerous savin oil to innocent rue and senna tea in quart bottles.

TRANSACTIONS OF FOREIGN SOCIETIES.

French.

MISTAKING TUBERCULOUS PERITONITIS FOR ACUTE INTESTINAL OBSTRUCTION—CEREBELLAR ABSCESSES FOLLOWING MASTOID DISEASE—ORIGIN OF LIPOMATA - DIAGNOSIS OF ACTINOMYCOSIS—PNEUMONIA WITH MULTIPLE FOCI—BILIOUS FEVER WITH HEMOGLOBINURIA—GLYCOSURIA IN PREGNANCY—SERUM DIAGNOSIS OF GASTRO-INTESTINAL CATARRH—SERUM DIAGNOSIS OF TUBERCULOSIS—CURE OF KELOID BY INJECTIONS OF CREOSOTE OIL.

AT the Surgical Society, November 23d, QUENU spoke of the possibility of mistaking tubercular peritonitis for acute intestinal obstruction or for appendicitis. One patient, a woman from whom he had removed both tubes and ovaries for tuberculosis, developed such sudden symptoms of stoppage of the bowels that he thought the small intestine was obstructed by an adhesion. Laparotomy showed that there were no adhesions, but that the peritoneum was thickly studded with minute tubercles. The operation was terminated, and the symptoms of obstruction vanished but the patient died soon afterward from extension of the tuberculosis. In another case obstructive symptoms came on suddenly in a little girl, the pain being referred to the right iliac fossa, so that the diagnosis of appendicitis was made. The usual incision for that trouble permitted the escape of some fluid and showed the peritoneum to be tubercular. This patient died two days later with symptoms of meningitis.

BRUM said that he had twice operated upon children having tuberculous peritonitis, under the supposition that they were suffering from acute appendicitis. Both patients recovered their health.

POTHERAT, BROCA and TUFFIER mentioned similar instances in which the diagnosis between acute intestinal obstruction and tuberculous peritonitis was made, either with difficulty or not until operation. In one of BROCA'S patients there was present obstruction by a band, as well as tubercular lesions. Appendicitis in another patient was mistaken for tuberculosis until it was too late. Most of the mistakes in diagnosis occurred in young children.

At the session of November 30th, QUENU spoke of two cases of non-union of fractured bones, in which union was secured after the administration of thyroidin. One of these patients was myxedematous after thyroidectomy.

RECLUS used thyroidin with success in a case of non union of six-months' duration, but it failed in his hands in two other cases.

PICQUE reported a case of cerebellar abscess following mastoid trouble in a child four years of age. He classified such abscesses as antero-internal, antero-external, and postero-internal. The last is much the rarest form of the three. They are best attacked by a temporo-occipital craniectomy which exposes the abscess in no matter which of the three situations, while the partial mastoid resection of Wheeler, or the total mastoid resection of Mignon, often give insufficient opportunity to get at the abscesses in the anterior situations, and fail utterly when the pus is situated in the posterior regions.

GUINARD and BROCA expressed a preference for the mastoid route, unless a diagnosis of posterior cerebellar abscess could be definitely made out before operation.

At the session of December 14th, TUFFIER showed a specimen which he had removed from beneath the clavicle of a woman aged twenty-seven years, where it had been growing six years. Besides the fatty lobules there were in it, calcified portions which examination showed to be due to an affection of a lymphatic gland. The specimen seemed to afford evidence in support of the recently advanced theory, that lipomata are due to inflammation of lymphatic glands, a true lipomatous periadenitis.

DELBET mentioned the occurrence of lipomatosis about lymphatic glands in such a manner that each gland was encircled by a thick layer of fatty tissue. Fat tissue develops similarly in the abdomen about the kidneys, bladder, rectum, etc., but such fat cannot be differentiated from true lipomata, and under conditions which waste the general tissues of the body, it holds its own, acting in this respect the part of a tumor. These perivisceral lipomata are probably of inflammatory origin, as are many lipomata which are found upon artisans at points where they are subjected to repeated contusions. There is, however, another distinct group of lipomata, which are congenital in origin, and often associated with angiomata. The term adenolipoma is an unfortunate one, since it suggests an adenoma rather than an inflammation of a gland, and it is better to use the term lipoma of inflammatory origin. The perivisceral fat tissue may be less definitely encapsulated and of greater fibrous consistence than the tissue of the common lipomata, but these distinctions are variable ones, for lipomata of all grades of encapsulation and firmness occur.

LEJARS thought that there is a great difference between the ordinary lipomata and symmetrical lipomatoses which in their growth can assume a certain degree of malignancy.

PONCET said that the diagnosis of actinomycosis can

be readily made from the clinical characteristics, and that one ought not to depend on microscopical diagnosis alone, for many times it is difficult to find the characteristic fungi, and if the microscopical diagnosis alone is considered, many cases of undoubted actinomycosis will be allowed to slip away unnoticed. His experience led him to believe that the disease is far commoner than is generally understood.

At the Medical Society of the Hospitals, November 25th, DUFLOCQ described a case of pneumonia with multiple foci, there being no less than nine of these in the lungs, and five in the rest of the body as follows: a suppurative arthritis of the right shoulder, a prelaryngeal abscess, an inflammation of the inguinal and crural glands, a suppurative psoritis, and finally, a meningitis. Pneumococci were demonstrated in these various foci, and were also found during life in the blood.

At the session of December 2d, VINCENT read a paper on the etiology of bilious fever with hemoglobinuria. Most writers assume that hemoglobinuria is due to malaria. In five cases which had recently come under his notice he had never been able to find any organisms in the blood except in one instance when an ameba was present. The patients had an intense fever with jaundice and bilious vomiting. Moreover, sulphate of quinin is useless in such cases. Two of the five patients referred to died, and three recovered. In paroxysmal hemoglobinuria, so-called, the occurrence of a chill is often said to produce the hemoglobinuria; but in the disease under discussion, such did not seem to be case. Koch and others have asserted that the condition can be produced by the quinin which has been taken to ward off or to cure malaria; but this view does not seem to be well founded. The clinical character of the affection, and the epidemicity which it sometimes manifests, leads one rather to the opinion that it is of an infectious nature.

At the Biological Society, November 26th, BROCARD spoke of the glycosuria of pregnant women, of whom he had examined 125, finding that sugar existed in the urine of sixty of them, that is to say, in about fifty per cent. of the cases. The presence or absence of sugar was variable, being influenced by the diet, the time of day when the water was passed, etc. Glucose and lactose were the sugars usually found, saccharose and levulose being present only occasionally. In many instances in which no sugar was found in the urine, it would appear if the patient took 50 to 100 grams (1.5 to 3 ounces) of sugar. Why should the ingestion of this small amount of sugar give rise to glycosuria? An attempt has been made to explain this fact by saying that the hepatic action was insufficient, but glycosuria occurs in women whose livers are acting perfectly as far as one can observe. The glycosuria of pregnancy is rather to be attributed to a disturbance of the general nutrition.

NOBECOURT reported experiments made to determine in attacks of gastro-intestinal trouble in infants due to the colon bacillus, whether or not there is a specially virulent colon bacillus which is the cause of the inflammation. He found it impossible to settle this question by methods of agglutination, since the serum of patients who had virulent coli bacilli in their stools, failed utterly to agglutinate these bacilli, while the serum of those patients whose stools contained non-virulent coli bacilli frequently exerted a weak agglutination upon such bacilli. In other words there is no such thing as a serum diagnosis of gastro intestinal infections. Experimental serums, obtained after inoculations with the same virulent coli bacilli, had an agglutinative power, each for its own colon bacillus, but not for others equally virulent, obtained from the diarrheic stools of other infants in the same locality and place, so that it is equally impossible to speak of a special sort of colon bacillus which is responsible for gastro-intestinal affections of infants.

WIDAL said that the serum reaction for coli bacilli in man does not possess the value which that for typhoid bacilli possesses, because the different specimens of coli bacilli obtained from sick or healthy individuals, in spite of their similarities, are, nevertheless, distinct. The clinical results are quite in accord with this statement. It was at first reported that a serum diagnosis was possible in four-fifths of the cases of gastro-intestinal catarrh, but more careful investigation has shown this to be much overstated. The speaker agreed with Nobecourt that there is no special kind of colon bacillus which produces gastro-intestinal infection, and that the serum diagnosis of cases of this disease is worthless.

December 10th, MONGOUR and BUARD stated that a sharp agglutination was caused by the serum of four patients suffering from serous and hemorrhagic pleurisy, undoubtedly tuberculous, as well as by the serum of nine phthisical patients. Twenty other patients ill with various maladies (epilepsy, rheumatism, bronchitis, scarlatina, typhoid fever, etc.) were subjected to examination by the serum method, and a positive result led to the discovery of latent foci of tuberculosis in them which had not before been suspected. The greater the resisting power of the patient, and the less his cachexia, the more sharp was the agglutinative reaction.

At the Society of Dermatology and Syphilography, December 8th, BALZER described the result of injections of oil containing 20 per cent. of creosote for the cure of keloid in a girl aged sixteen years. The child was of a strumous diathesis and her brother had died of tuberculosis. She had two keloids, presumably tubercular, recurrent in the scar following the removal of a tumor, probably lupus. One c. c. (15 drops) was injected, several punctures being made. Owing to the density of the tissue some of the fluid exuded. The pain was slight, but the inflammatory reaction the following day was severe, and was followed by the disappearance of a considerable portion of the growth. The ulcers which formed healed readily. After four treatments the smaller of the keloids had disappeared entirely, while the larger persisted after nine injections, although greatly reduced in size.

REVIEWS.

THE HYGIENE OF THE VOICE. By THOS. F. RUMBOLD, M.D. St. Louis: Witt Publishing Co., 1898.

THIS little monograph was evidently written for sing-

ers and, probably, to some extent, for physicians. Besides enumerating a number of annoying functional and organic troubles that may afflict speakers and singers, the author presents a horrible picture of the effect of tobacco upon the respiratory mucous membranes, devoting one paragraph to show how smokers may be detected after death. The bookmaking is something to shudder at.

A COMPEND OF DISEASES OF THE SKIN. By JAY F. SCHAMBERG, A.B., M.D. Philadelphia: P. Blakiston's Son & Co., 1898.

THIS little work, which constitutes the dermatological volume in the publisher's series of Quiz-Compends, will undoubtedly prove one of the most valuable of the series. The subject of dermatology is so much neglected at our schools, and its presentation to the student, moreover, rendered so difficult and complex that the undergraduate will surely welcome the admirably clear and concise synopsis here presented.

A PRACTICAL TREATISE ON DISEASES OF THE SKIN. By JOHN B. SHOEMAKER, M.D., LL.D. Third edition. New York: D. Appleton & Co., 1898.

THE third edition of Dr. Shoemaker's well-known textbook constitutes a welcome addition to the works on dermatology. The previous editions of the book are so well known to the profession and have been so favorably received that any words of commendation would appear superfluous. The work is particularly rich in formulas for the internal and external treatment of skin diseases and will be valued especially by all those who share the author's therapeutic enthusiasm. Paper, presswork, and typography are of a high standard of excellence.

TRAITE DE MEDECINE ET DE THERAPEUTIQUE. Publie sous la direction de MM. P. BROUARDEL et A. GILBERT. Tome cinquième. Paris: J. B. Baillière et Fils.

THE fifteenth volume of this system embraces the diseases of the salivary glands, of the pancreas, of the liver, the spleen, the kidneys, and of the male and female generative organs. The widely known views of the French school on therapeutics and pathology are found emphasized, although credit is given to German investigators and clinicians. The chapters on gynecology are wofully deficient, while those on diseases of the other abdominal organs are fully and thoroughly treated. The work is one for reference only.

THE CARE OF THE BABY. A Manual for Mothers and Nurses. By J. P. CROZER GRIFFITH, M.D., Clinical Professor of Diseases of Children, University of Pennsylvania. Second edition. Philadelphia: W. B. Saunders, 1898.

THERE are many, many things in this splendidly written book that tend to make the treatment of sick children easier for the physician, and that will aid a mother in keeping her children out of the doctor's hands. The element that predominates is one of common sense based upon experience. Here one finds all that concerns the child from the time of its birth to the hour of its beginning education, and it is safe to assume that a child handled in the manner indicated in Dr. Griffith's book will be a splendid specimen mentally and physically. Although the book is intended primarily for mothers and nurses, there is much in it which the average physician does not know and might know to the advantage of his patients.

THE POCKET FORMULARY FOR THE TREATMENT OF DISEASES IN CHILDREN. By LUDWIG FREYBERGER, M.D., Vienna; M.R.C.P., London; M.R.C.S., Eng. Clinical Assistant, Hospital for Sick Children, Great Ormond street; Curator of the Museum, Pathologist and Registrar, Great Northern Central Hospital, London. London: The Rebman Publishing Co., Ltd., 1898.

THIS little book will be found helpful in prescribing for children. It contains a brief account of the properties and the general and special therapeutic uses of drugs, old and new, which have been proven valuable in the treatment of children's diseases. A large number of formulæ is given, many of them being credited to eminent authorities. Incompatibles, antagonists, and antidotes are noted, and careful mention is made of the correct dosage for different ages, and also of the exact amount needed of the flavoring agent which will best disguise an unpleasant taste or smell. Lists of preparations suitable for local and hypodermic medication are appended. The book is clearly printed and conveniently indexed.

THERAPEUTIC HINTS.

For Gastric Fermentation, due to gastrectasia, or pyloric stenosis:

℞	Resorcin	ʒ ss
	Bismuthi subnitratis	ʒ iiss
	Aq. dest.	℥ iii.

M. Sig. One teaspoonful in a glassful of water half an hour before meals, three times a day. (Shake the bottle before using.)—*Einhorn.*

For Uric-Acid Diathesis.—For such patients the following mixture is recommended by GOLDING BIRD:

℞	Sodii bicarbonatis	gr. xlv
	Ac. benzoici	gr. xv
	Sodii phosphatis	gr. lxxx
	Aq. bullient	℥ iss.
M.	Dissolve and add:	
	Aq. cinnamomi	℥ iii.

Sig. Two teaspoonfuls three times a day.

To Prevent Vomiting after Eating in Tubercular Patients.—MATHIEU claims that the administration of menthol as given below will limit or entirely prevent the occurrence of the coughing spells which follow ingestion of food, and frequently induce vomiting:

℞	Menthol	gr. iv
	Syr. simplicis	℥ i
	Mucil. acaciæ	℥ iii.

M. Sig. Two to four teaspoonfuls at intervals after meals.